

# The Mining Journal

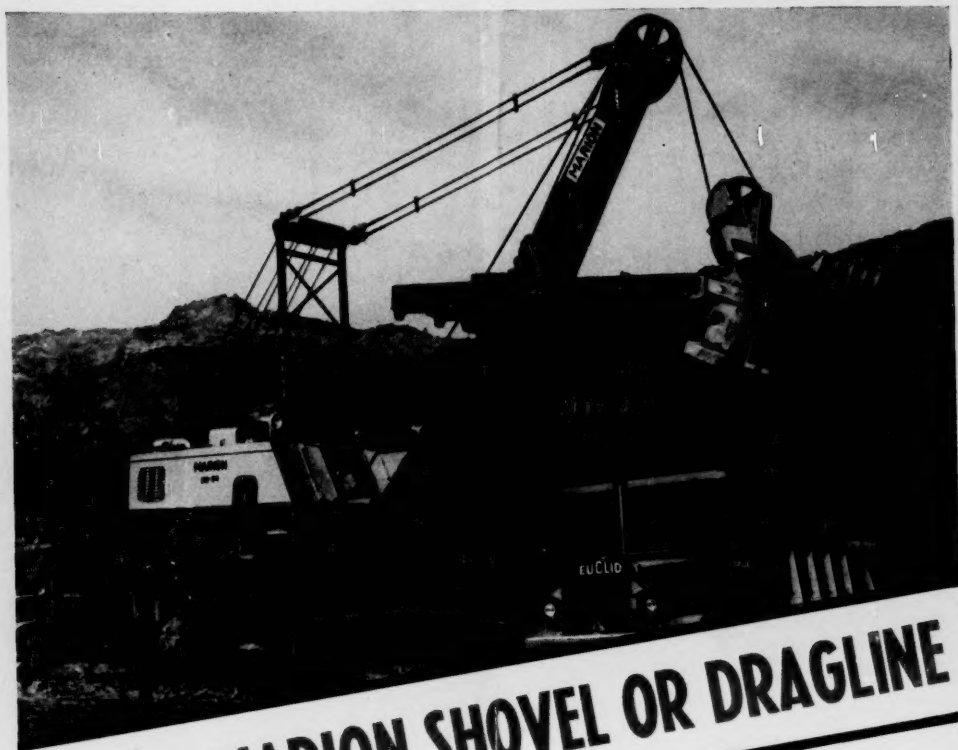
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Vol. CCXXXIX No. 6119

LONDON, NOVEMBER 28, 1962

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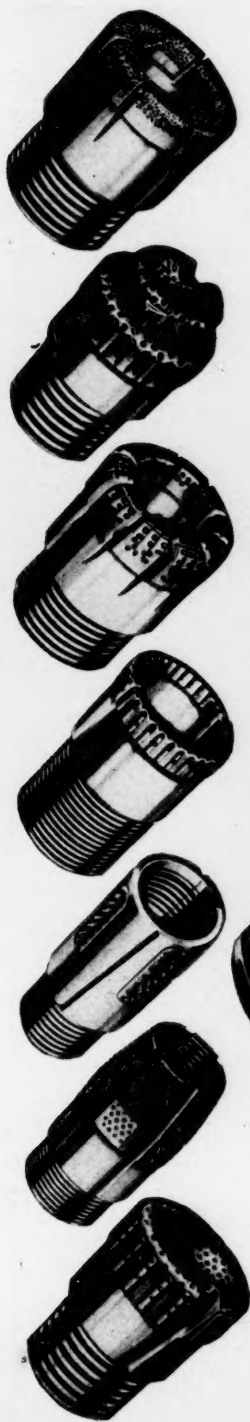
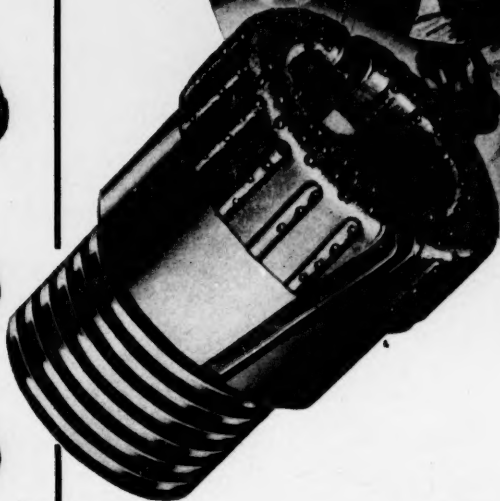
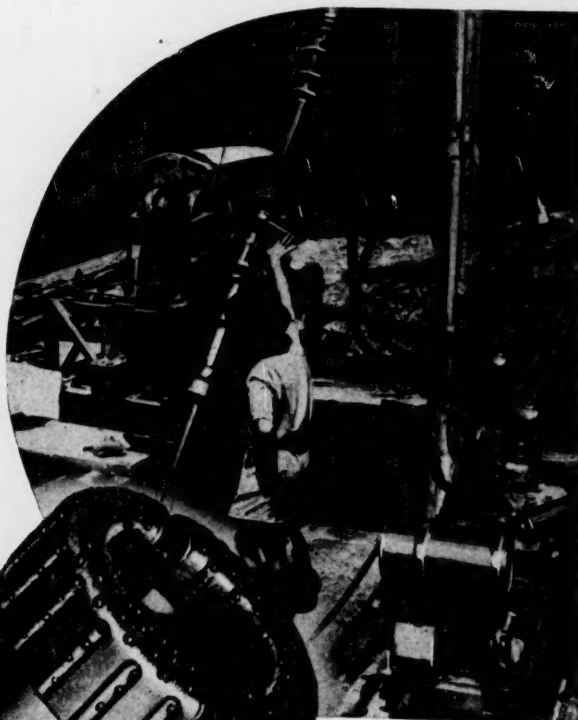
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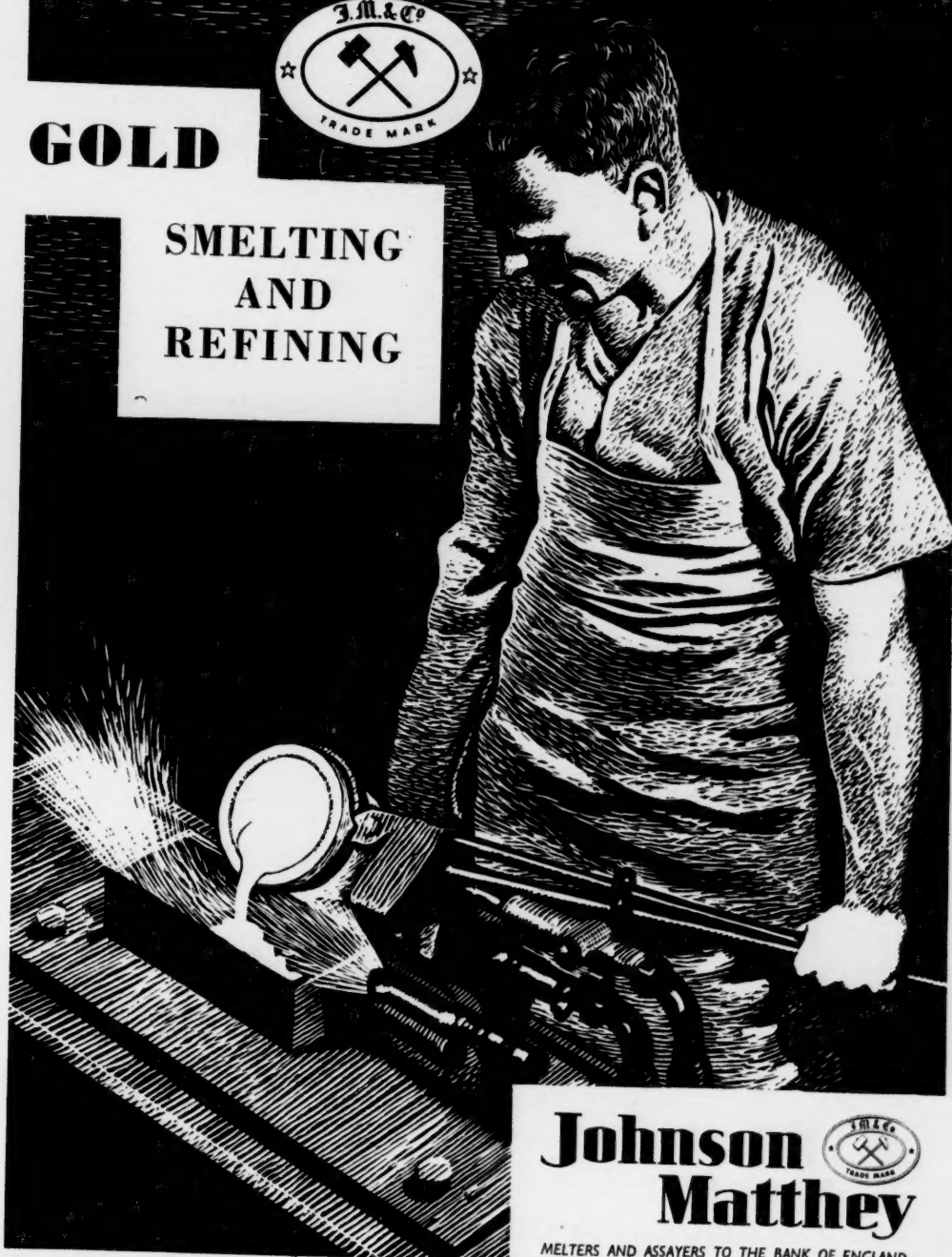
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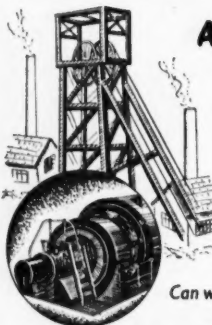
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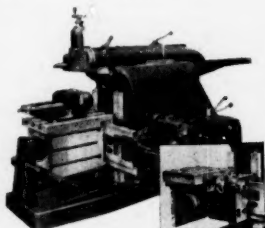
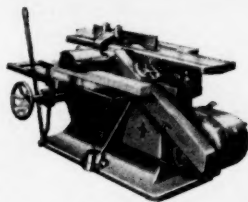


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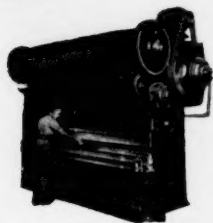


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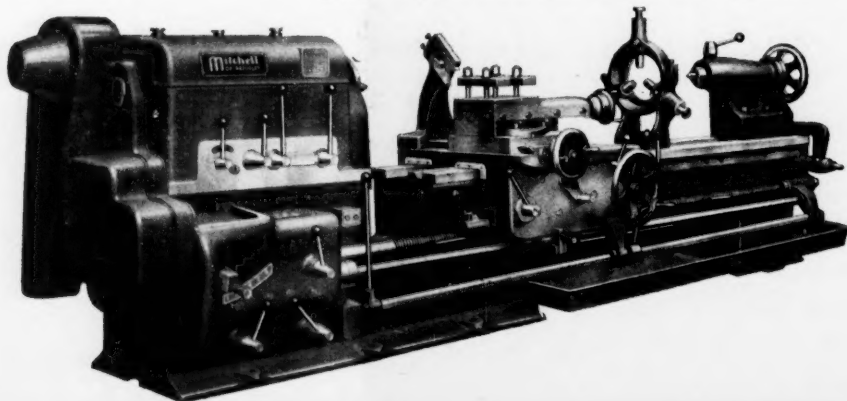
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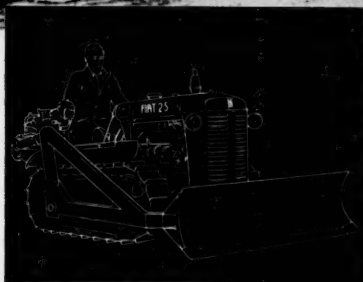
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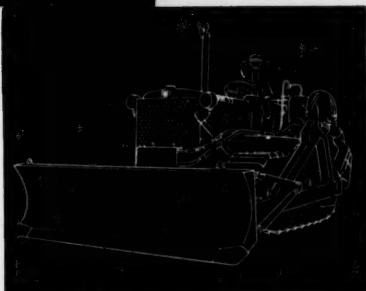


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# The Mining Journal

Established 1835

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## NOTES AND COMMENTS

### Trade Union Activity in the Rhodesian Mining Industry

Our Rhodesian correspondent, writing from Salisbury, under date of November 21, says that although the strike of 37,000 African miners, which brought production on the Northern Rhodesian Copperbelt to a standstill for three weeks, has now ended, no one locally is completely happy about the situation. After special conciliation talks had reached deadlock within 48 hours, the Northern Rhodesian African Mineworkers' Union has, with thinly-disguised reluctance, agreed to submit to arbitration its claim for an all-round pay increase of 2s. 8d. per shift. The copper mining companies announced their readiness to go to arbitration before the strike started and it is difficult to see what the Africans have gained by their strike. Whereas the companies retain the £4,500,000 worth of copper that would otherwise have been produced in those three weeks, the Africans have lost irrevocably at least £300,000 in forfeited wages and rations. The only real achievement is to demonstrate that their union is well-disciplined and ably directed in that it is able to conduct a strike in an orderly fashion and honour its obligations to maintain essential services at all times.

One cannot escape the conclusion that this is no ordinary wage dispute. The union has taken the opportunity to draw attention to the "industrial colour bar" which exists in Northern Rhodesia and has also chosen this moment to communicate with Sir William Lawther, secretary-treasurer of the Miners' International Federation, and invite this organization to send a small delegation to Northern Rhodesia to study the situation at first hand.

It has been suggested that the union is now determined to secure the full implementation of the recommendations in the Dalgleish Report, published more than four years ago. The Dalgleish Commission was officially appointed to inquire into the advancement of Africans in industry in Northern Rhodesia. Its recommendations were listed under the headings: "Posts not now occupied by Africans which they are capable of filling immediately"; "Posts which individual Africans are capable of taking over in the comparatively near future"; "What training facilities should be made available to Africans to enable them to advance to more responsible and skilled posts in industry

and how these training facilities should be provided"; and "Posts in the mines to which Africans at present in employment might advance after a period of training." The African Mineworkers Union contends that these recommendations have been largely shelved under pressure from the European Mineworkers Union and, since both unions are affiliated to the Miners' International Federation, there is a case for inviting an independent survey by the Federation. It would be no exaggeration to say that future industrial peace on the Copperbelt is more dependent upon the outcome of such a survey than upon the decision of the arbitration now planned.

Meanwhile, Mr. Roy Welensky, Leader of Unofficial Members in the Legislative Council, has urged the need for transferring the main headquarters of all copper mining companies to Northern Rhodesia and Sir Ernest Oppenheimer, chairman of the Rhokana Corporation, has announced the decision to establish an additional copper mine 20 miles north-west of Chingola.

### A Problem of Supplies and Prices

While the House of Commons has been heatedly debating the provisions of the Bill to restore the nationalized section of the steel industry to private ownership, the vast body of consumers of iron and steel have been more concerned with the twin problems of supplies and prices. It is a disappointing fact that although many industrial plants have been slowed down through the lack of steel, deliveries have not been increased proportionately with the expansion of production. Exports last month were on an appreciably better scale, but the increase in home deliveries have been quite trifling and for the most part the authorities have refused to sanction any increase in the allocations earlier than the first quarter of next year.

Meanwhile, stocks at the producers' works are piling up. At the end of September, the latest date for which information is available, pig iron stocks totalled 677,000 tons compared with 357,000 tons in May. In the same period stocks of ferrous scrap increased from 232,000 to 376,000 tons and steel stocks from 586,000 to 789,000 tons. Not unreasonably it is urged that it has become an imper-

ative duty to put this material to immediate use instead of allowing it to cumber the stock banks.

A statement on the subject of the future level of iron and steel prices would also appear to be desirable. On Monday next railway freight rates, dock and canal charges will be increased 5 per cent. It will be the fourth increase in 2½ years and is estimated to involve a rise of about 5s. per ton in the cost of steel production. Whether this impost is to be borne by the industry or passed on to the consumer is a question to be determined by the Minister of Supply and as yet there is no indication of his intentions.

In the latest statistical bulletin of the British Iron & Steel Federation it is disclosed that the industry has purchased for the current year's consumption about 1,000,000 extra tons of foreign ore and has stepped up its use of home ore to the extent of 2,000,000 tons. Plans for 1953 provide for a further increase in the arrival of foreign ore, and for an additional 1,250,000 tons in home ore usage. This will mean a home ore production of at least 17,000,000 tons in 1953 with a further considerable increase thereafter.

### The Finnish Metal Industry

Latest reports from Helsinki show that the metal industry of Finland has now become the country's third most important exporting industry. The metal industry follows timber and pulp in national importance, and was largely built up to meet the reparations deliveries to the Soviet Union. These deliveries totalled \$300,000,000 worth of goods at pre-war prices and were completed during October last. As approximately one-third of the deliveries were manufactured goods, Finn manufacturers were called upon to erect new factories and shipyards to ensure production and thus, since the cessation of hostilities, Finland has become an industrial power.

The metal industries now produce a wide range of goods, and value of exports is this year expected to total 20,000,000,000 marks. Industrialists in the country hope that this export value figure will rise to approximate figures of 25,000,000,000 marks in 1954 and 30,000,000,000 in 1955, an overall export proportion that would retain the foreign distribution of the metal industries at approximately 25 per cent of their total output. The industrialists of Finland believe that these export targets will be reached, mainly with the help of Finland's trade agreements with the Soviet Union and "other Communist States," notably China. It is worthy of remark that a long term trade agreement exists which fixes the type of exchanges until the beginning of 1955, and that the values and amounts of these exchanges are fixed in annual agreements which usually are negotiated in Moscow. The third of these agreements has just been made, and so far they have been quite satisfactory from the Finnish point of view. Nevertheless full details have not been disclosed, although semi-official reports say that markets in Soviet Russia and Communist China are assured for the complete exportable surplus production of Finland's shipbuilding and manufacturing industries until the end of 1955.

The Finns hope that as total output increases, the correspondingly increasing surplus available for export will be sold to the Western World. On the other hand, the trading contacts with the Communistic countries are highly valued, as not only a good market is assured but also a supply of essential raw materials such as coal, ores and the like.

Meanwhile the Harjavalta copper works of the Outokumpu Copper Mines Ltd. are shortly to commence the manufacture of iron from copper slag, a move which is expected to yield about 30,000 tons of steel per annum. In the Otanmaeki, in addition, new plants are expected to produce approximately 115,000 tons of iron per year.

### The Volta River Aluminium Scheme

The Volta River project, the general outlines of which were published in our issue of August 3, 1951, has now been carried a step further with the publication this week of the White Paper on the Volta River Aluminium Scheme (Cmd. No. 8702, price 9d.).

The project envisages the creation of a new source of hydro-electric power through the damming of the Volta River and the development of the Colony's mineral wealth, more particularly its bauxite resources, to the direct benefit of the United Kingdom.

The White Paper does not, of course, mean that the scheme will be implemented forthwith, for no decision can be taken until after the report of the Preparatory Commission has been submitted. However, as the scheme has been thoroughly investigated and examined by all parties concerned it can be assumed that the project, as now outlined, will be vested with the authority necessary for its implementation as soon as possible.

Although the successful completion of the scheme will establish the Gold Coast as one of the world's leading producers of aluminium, it is to be borne in mind that the colony's eventual output under this scheme of 210,000 tons a year does not compare with the productive capacity of some of the giant schemes now in hand in Canada and the United States. Yet the project, as a whole, embracing as it does road and rail developments as well as harbour improvements, goes far beyond the mere development of the colony's mineral wealth and promises great potential benefit to the future social and economic progress of the Gold Coast.

The scheme will be described in next week's issue.

## Cornwall

(From Our Own Correspondent)

Redruth, November 21

It was made known on November 20 that the directors had decided to close the New Consols Mine at Lucket, Near Callington, although it is understood that the recovery of alluvial wolfram which was started by the company on the side of Kit Hill will continue.

During the next few weeks, some seventy men, mostly underground workers, will be discharged and the first eighteen are being paid off this week. Production is said to be uneconomic and the company has found it impossible to obtain the additional capital required to deepen the shaft and carry out any further exploration.

Until quite recently considerable cross-cutting has been carried out and two lodes were cut. Although the values were not good when intersected, it is perhaps a pity that after driving along cross cut, lodes were not explored.

In a statement to the *Western Morning News* by the chairman of the company, Mr. F. Lyde Caunter said, "The management have been considering deepening the shaft, but shaft sinking is extremely costly and the penal taxation of wasting assets in this country is such as to deter private enterprise from risking capital on speculative marginal deposits. Other countries with flourishing metal mines adopt far more sensible laws on taxation, recognizing the high risk involved and the limited life of all mines. Strong representations have been made to the Government and it is apparent that under existing conditions there can be no serious revival of metal mining in U.K."

New Consols Mine was re-opened in 1947 having been idle since 1878. It is understood, however, that the plant will be used at the Trebartha Wolfram Mine which is being opened up with some good prospects and where the company have a financial interest.

## Developments in the Belgian Congo

(From Our Own Correspondent)

Brussels, November 24.

Though Sir Ernest Oppenheimer, in the last report of the Rhokana Corporation, stated that the Northern Rhodesia Power Corporation, to cover requirements after 1956, had virtually finalized arrangements with the Union Minière for the supply up to a period of 20 years, of substantial quantities of electricity from a new hydro-electric station to be constructed in the Belgian Congo, this arrangement has still to be ratified by the Belgian Government. Owing to the refusal by the Southern Rhodesian Government to allow shipments from Wankie to Katanga of coal and coke, Katanga has been, and is still, compelled to purchase the fuel it requires from distant United States. The consequences to Katanga is a great and unexpected inconvenience, as the Katanga coal is of poor quality. Not unnaturally the Belgian Government is disturbed by the prohibition of shipments and consequently in no great hurry to ratify the agreement. Negotiations are now taking place on the subject, but I am informed that it would be premature to say that the power agreement is about to be ratified.

### HYDRO-ELECTRIC POWER

Towards the end of this year the Delcommune hydro-electric power station will be put into commission and link up with the two stations already existing in Katanga. The Delcommune station will be able to produce a yearly average of 475,000,000 kWh. Of the two other stations, the Franqui produces on an average 325,000,000 kWh. and the Bia 172,000,000 kWh. The Union Minière, as has been noticed in this correspondence previously, has still under construction a fourth hydro-electric power station in the province—Le Marinel. The station is designed to produce an annual average of 792,000,000 kWh. and should be completed in 1957.

The constant growth of traffic, combined with the lack of good local coal, and the availability of cheap hydro-electric power has led to the Katanga railway starting the electrification of its system. A month ago the electrification of the Jadotville-Tenke section of 105 kilometres was inaugurated. This line serves to connect the Sakania-Elisabethville-Jadotville line with the lower Congo-Katanga railway from Port Francqui on the navigable Kasai River, and with the line of the Leocadi railway which links the Sakania-Tenke line with the Benguela railway to Lobito Bay, which furnishes the shortest route to the coast and from Northern Rhodesia. It is of interest to note that during the first nine months of this year the line carried 1,513,133 tonnes of freight compared with 1,392,496 in the same period of last year.

Mr. Herbert Solow, after touring the Congo, writes in the November issue of *Fortune*, "Geomines has a coal mine near Albertville which may become the basis of a gasoline distillation venture. In its report to shareholders held in Brussels on November 13 the Union Chimique stated that the syndicate formed to investigate the possibility of producing synthetic oil from the Lukuga coalfields has concluded its researches with encouraging conclusions so far as the chemical problems to be solved are concerned. The carrying out of the scheme now depends upon satisfactory operations in the coalfields as regards output and cost."

The announcement that new copper mines are to be opened in the Northern Rhodesian copperbelt reminds your correspondent of what Sir Robert Williams once told him when he enquired why he chose Katanga as a field for his prospecting. "I chose," he said, "Katanga, because big mines are often on the divide between two great fluvial basins and Katanga is on the northern slopes of the Congo-Zambesi divide."

The Association of Engineers trained at the Mons School of Mines will in a few months commemorate the centenary of its foundation. In celebration of this event the Association is opening a public subscription to erect a statue to Jules Cornet, the great Belgian geologist who taught at the Mons School of Mines for 35 years and was the first scientist to establish the mineral richness of Katanga. He was, in fact, the geologist of the Bia-Franqui expedition sent out by the Compagnie du Katanga in 1892. Anyone wishing to contribute to the memorial may send a subscription to the Association des Ingenieurs de Mons.

## Portugal

(From Our Own Correspondent)

Oporto, November 11.

Regarding general mining matters here, the position is just what might have been foreseen early last year. Both export and production figures have fallen off, and are likely to fall further. Unless some reduction of the present taxation is made the outlook for Portuguese mining is the reverse of bright as there seems no prospect of taxation accompanying the fall in the price of wolfram and cassiterite, the pet targets of taxation. Worth special mention is the long overdue refusal on the part of U.K. and U.S.A. buyers to accept or to include in the value of  $WO_3$  (wolframite) a scheelite content of over a minor fraction. This has effectually put paid to the irregular methods employed by some of the exporters here.

### WOLFRAM TO FEATURE IN ANGLO-PORTUGUESE TRADE TALKS

Talks regarding the 1953 Anglo-Portuguese Trade Agreement are now proceeding in London. Reports are in circulation here to the effect that wolfram is one of the principal items in the discussions and that exports may be allowed without the requirement that 30 per cent of the value be left in the hands of the Bank of Portugal. The U.K. is a traditional market for Portuguese ores, and a return to normal trade would be welcomed. Cassiterite finds a ready market in the U.K., certain firms having concentrated on that market and having a regular and organized outlet there. Specially now, with the Bolivian Government measures, would be a reversion to the traditional market be welcome.

The recent *dénouement* leading to the cancelling of an important contract for tungsten ore made between a Lisbon firm and a foreign government, continues to be a *cause célèbre*. Putting aside the legality, or otherwise, of private commissions, the main error of the Lisbon firm involved appears to have been to underestimate their production and delivery possibilities. Commercially, the firm knew what they were doing, where they failed was in the practical mining side of the matter. There has been a certain amount of eyebrow raising over the obviously wrong information supplied to the other contracting party concerning local facts, figures and possibilities. As a full investigation is promised, and as the result is to be made available to the public, the official report is waited with interest.

## Possible Uses of Caravans in the Mining Industry

The use of trailer caravans in the mining industry is perhaps deserving of more attention than it has hitherto received. Mobile trailer camps constitute a sound investment at the prospecting and initial stages of a mine's development, and the following article gives details of the duties in which caravans have already been employed by survey geologists in different parts of the world. The article continues to outline the prospective scope offered by these units to the mining engineer, but emphasizes that to be completely effective a trailer must be specifically designed and constructed for a particular task.

In view of the numerous technical and semi-technical functions trailer caravans are already fulfilling, their potential utilization in the mining and oil industries ranges over a wide selection of possibilities. For the caravan, received by the purchaser as a specially designed finished product, requires no erection or additional materials, and thus from the moment of delivery is literally a "going concern."

Among manufacturers of special duty trailer caravans are Messrs. Coventry Steel Caravans and their associated company and export distributors, Messrs. Roura & Forgas, Ltd. The latter firm have their own associated company in Germany, Messrs. Roura & Forgas, G.m.b.H., so that specialized German equipment can be incorporated into their designs. An example of what can be accomplished in trailer caravan design and construction for special duty work was contained in *The Mining Journal* of October 12, 1951, p. 360, when the survey unit comprising two Coventry steel caravans supplied by Roura & Forgas Ltd., to the Egyptian Government, for a geological survey in the Western Desert was described in some detail.

The unit included two 22 ft. caravan trailers to be towed in line by a rebuilt ex-W.D. A.E.C. Matador. In this equipment, the tractor vehicle provided accommodation for the driver and outside servants, as well as supplying carrying space for two 6.25 k.v.a. air-cooled auto Diesel alternators.

### SPECIALLY DESIGNED UNITS

Other specially designed trailers have been supplied by the companies for service in the Middle East and the Gold Coast, and in each case design and construction were specifically dictated by conditions of climate, and the work to be accomplished by the caravans, as well as a consideration of the ground over which they would pass.

Another multi-purpose trailer and tractor unit designed for use in the Middle East was supplied for the United Nations Relief and Works' Agency for the accommodation of Palestine refugees. In this instance the caravan was supplied as a shell equipped with an adequate water storage electric pump to feed the header tanks from the chassis tanks and auxiliary foot pump.

Of the caravan units supplied by the firm for operations on the Gold Coast, two supplied to Messrs. Rendal, Palmer & Tritton deserve special mention. The first comprised a mobile drawing office and living trailer for use by personnel employed on the road extension survey of the Gold Coast Government, and provided storage for survey instru-

ments as well as drawing office facilities, and was convertible for sleeping. The second, a 15 ft. living trailer for use on the Gold Coast Railway extension survey, was specially designed for West African climatic conditions.

### A WIDE SCOPE

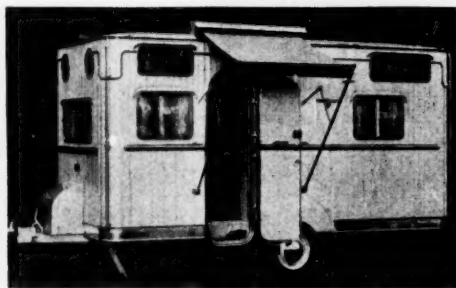
The most obvious use of caravans in the mining industry is, of course, as static accommodation for the temporary housing of mining personnel. Yet however important this function may be considered, the versatility of the caravan is given more scope when, as a group of units, the trailer camp is formed to constitute a mobile mining camp ready to be towed to or from the field of mining operations. In the case where prospecting work proves abortive this mobile mining camp, accommodating the mining personnel and their equipment, can be towed to begin operations at another spot. In this instance they represent no financial loss to the mining company as in their decampment they do not leave behind the permanent or quasi-permanent structures usually associated with the "ghost" town.

More specifically, caravans specially designed for service in the mining industry can, for instance, provide assay offices so that samples may be dealt with on the spot, and the employment of caravans as hospitals and dental clinics or offices wherein the surveyor, sampler and draughtsman can complete their work on site is easily visualized. For if a caravan is able to transport safely the precision instruments with which a dental surgery is equipped, as has already been done, it is logical to suppose that the balances of an assayer's laboratory could be carried with similar efficiency.

Thus, by the employment of trailer caravans a mining camp can become a single highly mobile and extremely efficient unit, saving time and money and the "to-and-fro" transportation of men and equipment and the building of temporary structures, items which together form an impressive expenditure from the time of the initial prospecting to the date when shaft sinking operations are well under way.

In Canada, Africa, the Middle, Near and Far East where mining companies are constantly pushing into little explored territory in search of minerals, it is not surprising to find that in each of these countries the trailer caravan, often used in close association with the helicopter, has made its appearance.

The mining engineer employing caravans to assist him in his work will, of course, realize at the outset that it would be ill-advised to use modified versions of caravans



An exterior view of a special 15 ft. trailer supplied for service on the Gold Coast

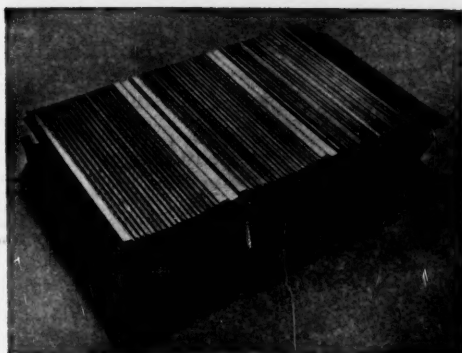


built primarily for holiday use, for the hope that these machines would be able to withstand the rigours of mining work in its formative stages would prove to be optimistic in the extreme. Indeed, the needs of the mining engineer can only be satisfactorily met by a special design and construction. Of prime importance is the design of the chassis and the selection of the towing vehicle, both of which must be capable of coping with the physical and climatic conditions of the territory to be covered.

#### IMPORTANCE OF SPECIFIC INSTRUCTIONS

To ensure that a trailer will meet his requirements, the engineer must demand a carefully constructed unit, manufactured at every stage to fit his operational needs and in setting out his requirements to the trailer caravan manufacturers, he must specify certain factors. These should include information on the intended function of the complete unit, as well as a detailed schedule of the facilities envisaged; the personnel likely to use the trailer and their designations; and finally, there should be included in the overall description of the envisaged caravan trailer, details of any special equipment to be installed or for which storage is required, as well as sketches of the ideal layout.

It is essential, too, that this statement be followed by a detailed explanation of the climatic and physical conditions of the country wherein the trailer is to operate, with other relevant notes which may affect the design or the choice of towing vehicles. These can be included under headings explaining the nature of the climate and temperatures likely to be encountered; whether the trailer is to be used on roads or on open country of a certain type, and what the depths and heights may be of the worst obstacles likely to be encountered, as well as the maximum gradients. A description of the ground over which the trailer would pass should include a statement that conditions of terrain



Special heavy duty, high insulation wall construction used on the majority of overseas models

embrace pack soil, mud, loose sand or other surfaces, and a note should be included stating whether European or native servants are to be employed as cooks.

This data should be sent to the selected manufacturers with a covering note giving any other necessary or important details such as the latest date for delivery, and sidelights on the scope and use of the unit visualized. It might be expected that a manufacturer of special duty trailers would in this case charge a design fee, but if so, this would be refundable as a credit against the subsequent order.

As yet the caravan has not been fully examined by the mining industry, but its potential value when specially designed to fill the role assigned to it, is sufficiently great to merit serious consideration by mining engineers.



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# The Bell Island Slope Conveyor Belt System

The following article gives details of a proposed conveyor belt system wherein the belts are to be designed and manufactured by The Goodyear Tyre & Rubber Co., and which will raise 1,000 tons of ore per hour from underground workings three miles out to sea off the eastern coast of Newfoundland.

The small Bell Island in Conception Bay, lies off the eastern coast of Newfoundland and faces the North Atlantic. Its vertical cliffs rise 200 ft. above sea level, and of its small population of some 10,000 persons, a total of 1,994 are employed in iron ore mining operations. These iron ore deposits, known as the Wabana Iron Ore deposits, are being mined below the sea by the Dominion Steel & Coal Corporation Ltd., and are estimated to support 95 per cent of the island's population. The Wabana property has been in operation for more than fifty years, and although initially the surface ore was mined, at present all workings are confined to the submarine field.

The principal problem in the operation of a submarine ore field is the transportation of the ore from the underground working faces to the foot of the main incline, and from that point the conveyance of the ore up this incline to surface. A feature for consideration is obviously that the working faces are, continually being pushed further from the incline foot.

## A PROPOSED CONVEYOR BELT SYSTEM

In the case of the Bell Island iron ore deposits, the answer to this problem of transportation to surface is being supplied by a proposed conveyor belt system which when completed, will be 2½ miles in length and will transport the ore from three miles under Conception Bay to deckheads situated on Bell Island. Claimed to be the longest and highest slope conveyor system in the world, the belts for the Bell Island conveyor will be designed and manufactured by the Goodyear Tyre & Rubber Co. of Bowmanville, Ontario, while the conveyor equipment will be manufactured in Belleville by Stephens-Adamson Manufacturing Ltd. The system will haul iron ore from the workings to the Bell Island deckheads at the rate of 1,000 tons per hour.

The conveyor system will be 1,733 ft. in height, and is to consist of two flights each of 1,450 ft., and eight flights each 1,230 ft. in length. The slope conveyor is to be made of Goodyear compass rope conveyor belting 36 in. wide, which will travel at 575 ft. per minute. The completed unit is equipped with two underground screening, crushing and loading pocket systems, both of which deliver onto the same belt at different locations. The entire system, from deckhead down to underground loading pockets, is designed to be fully automatically controlled and by its use ore lying at depths as much as 1,600 ft. below sea level will be raised.

At the same time as the problem of slope transportation has been solved by use of the described conveyor belt system, the question of underground transportation from working face to conveyor foot will be answered by utilization of electrically-operated locomotives. In its exact location, the slope conveyor system will run up one side of No. 3 slope, and will cover a distance of approximately 12,500 ft. from the foot of that slope to the deckhead on surface.

Under the original methods of exploiting the Wabana iron ore deposits, all ore was loaded by hand into cars of 1.8 tons capacity, but to-day the operational method utilized has replaced hand loading by mechanical loading practice. The particular machines used are slushers, electrically operated crawler shovels, and mechanical loaders.

The Wabana iron ore deposit itself lies beneath the bed of Conception Bay off the east coast of Newfoundland, with outcropping for a distance of about three miles on the north-eastern shore of Bell Island, dipping at approximately 8 degrees towards the north-west. The Dominion Steel & Coal Corporation Ltd. is at present extracting ore from workings situated three miles out to sea, and the property has an estimated proved tonnage of four billion tons.

Several factors have combined to allow the Wabana deposit to already make an important contribution to the economy of Canada. It is reported that Newfoundland has "felt the impact" of the \$88,000,000 spent in wages, export and import duties and similar aspects of finance, while other parts of the Dominion have earned approximately \$16,000,000 in profits by expenditures on the purchase of materials. In addition to these benefits, the existence of soft coal fields in Cape Breton, allied with the near proximity of the Wabana deposit, have resulted in the establishment of Canada's first fully-integrated, primary steel production plant in Sydney, Nova Scotia. This plant is the only installation in the Dominion which utilizes Canadian materials solely.

These considerations have brought about a marked increase of interest in the Wabana deposits. Until recent years, the iron ores supplied from the Lake Superior area were easily accessible and of good quality, and this established supply therefore eliminated the necessity for the steel industry of the United States and Canada to look further afield for a source of raw material. European producers, in their turn, used deposits of ore mined in Sweden, North Africa and Spain, and to this supply was added the benefit of an abundance of cheap labour. As the situation stood at that time, Germany and England were the only countries interested in the Bell Island source of supply.

## PHYSICAL CHARACTERISTICS OF ORE

This picture of disinterest has now undergone a complete reversal. The iron ore mined from the Wabana deposits is possessed of certain physical characteristics which contribute to an open burden, a factor which is much to the liking of the blast furnace operator. Because of these characteristics of the Wabana ore, flue dust losses are curtailed, and from the uniformity in size and quality of the ore a smoother working furnace result is achieved. These factors have resulted in a considerable increase in demand, and the annual production capacity of the Wabana property is being increased by the Dominion Steel & Coal Corporation Ltd. as rapidly as equipment is designed and installed.

It is suggested that as increased output is attained, the entire economy of Canada will be affected, as Bell Island will enjoy a prosperity never previously anticipated, Newfoundland in turn will benefit, and the steel mills of Sydney in Nova Scotia must inevitably expand. In all, the Wabana deposits, together with others now being uncovered in Northern Canada, will alter the Dominion's position from that of an iron ore importing country to that of an exporting one. Indeed, if the nation's prosperity parallels the optimistic future anticipated for its steel industry, then Canada is destined to play an increasingly important role in world affairs.



## The Uranium Rush

The following article—a reproduction of *The Times* first leader of November 22 last—summarizes much of the information which has been recently published on uranium developments. Although the facts will be familiar to readers of *The Mining Journal*, it is believed that the overall picture presented in *The Times* will be of considerable interest, taken in conjunction with the *Paley Report's* conclusions on uranium's industrial potential also summarized below.

As recent messages from many parts of the world have shown, the search for uranium is now intensive and far flung. It is proceeding in many remote and difficult regions as, for example, in the Northern Territory of Australia, which climatically could scarcely be a more unpleasant area for prospecting and mining, and in Northern and Central Canada, where only this week another rush of prospectors—this time to Dion Lake—has been reported. That at this stage the remoter areas should be combed is natural. But so far the search has had a peculiar history. There is no precedent for the strange position that arose when the discovery of the practical application of nuclear energy abruptly transmuted a well-known metal from dross into something of great value. That value is not, of course, threatened seriously by the rumoured events at Eniwetok. It is highly improbable that the heat necessary to start a nuclear fusion of light elements can be generated except by fission of heavy elements such as uranium; a hydrogen bomb, in other words, must need a full-scale uranium bomb inside it as—so to speak—a detonator. Nor is there any apparent prospect of using nuclear fusion as a source of controlled energy.

### PREVIOUS KNOWN SOURCES

For many years before the war uranium had been regarded primarily as a metal which merely existed in conjunction with radium—three almost useless tons of it to every gram of its precious companion. Less than 300 tons of uranium was used annually, though not in the form of the pure metal, by laboratories for experiment and by pottery factories for decoration. When atomic power came, the main existing sources of radium were thus already clearly stamped as immediate sources of uranium. Of these, much the most important was—and still is—the Shinkolobwe area worked by the Union Minière in the Belgian Congo. A less important but substantial source was near the shore of the Great Bear Lake in Arctic Canada. From these the first supplies were drawn. The United States had an important available source within her own borders on the Colorado plateau. There was known to be a source in Portugal. But there were other recorded occurrences also, though of far too low a grade to warrant extraction hitherto. The largest known potential low-grade source lay in the gold-bearing ores of the South African Witwatersrand. It has been found possible to extract the uranium at a tolerable cost because the ore has already been crushed and the gold extracted by the cyanide process and the waste "slimes" from that process are already prepared in a form suitable for treatment; it is the value of the gold that makes the uranium recoverable. Yet the uranium production is becoming a great industry in its own right. The treatment plants, the first of which was opened last month, will cost some £40,000,000 in all, and some £30,000,000 of annual revenue is expected from uranium sales.

As demand has grown, the search has been intensified and has extended to ores of a lower grade than was thought of even a few years ago. Where the Government buyers had hitherto quoted minimum prices for ores containing not less than 10 per cent of uranium oxide, last year they extended their offer to ores containing as little as 0.2 per cent. There have been various discoveries in

Canada. The most important is the "Beaver Lodge" discovery near Lake Athabasca in Northern Saskatchewan, where 700,000 tons of ore a year are expected to be treated. Australia has already one workable deposit not far from the Broken Hill mines, and the erection of a £7,000,000 treatment plant is under discussion. The latest find is in the Northern Territory, at Rum Jungle, and this may be much more important. It might, indeed, though little is known for certain as yet, rival the richness and quality of Shinkolobwe itself. An occurrence in Nigeria is known; but though it occurs in conjunction with niobium, which is now in some demand for heat-resisting alloys, transport and other difficulties make it unjustifiable to work it for the moment. Other proved sources are mostly small. But France already produces enough to cover her own immediate needs.

The vital importance of adequate supplies needs no emphasis. Adequacy must be measured both in relation to atomic plant available and to the sources available to Russia. About the latter little is officially known. The recorded radio-active occurrences in Saxony, Czechoslovakia, and Tadzhikistan are not likely to be large sources. The odds are, however, that there must be big occurrences somewhere in the heavily mineralized regions of the Urals. So far the Anglo-American-Canadian partnership seems to have filled its needs, though at increasing costs. In broad terms, the three countries are the only buyers from their own territories, and a joint buying organization purchases the supplies from elsewhere. Owing to the purchasing system, there is no dream of a vast fortune overnight to spur on the uranium prospector as it spurred on earlier prospectors for other minerals. But the driving force, to which ordinary patriotism contributes much, has been adequate. At any rate, prospecting is active—especially in Canada, Australia, and Northern Rhodesia, the mineralized region of which belongs to the same geological province as the Belgian Congo. In the main, the areas concerned are covered by the prospecting rights of large mining companies. But the small prospector is also at work, and indeed it was a small prospector who discovered the Rum Jungle deposit.

The supplying countries have their own problems. Is it wise for them, as some Australian commentators have asked, to let go their limited supplies of a metal which may be of immense value in the future? In utilitarian terms, the question is not simple. The purchasing governments, committing themselves to purchase all supplies for long periods, whether they prove to be needed or not, take a risk of their own. And the "risk" is technical as well as political. Apart from the remote possibility that developments in nuclear fusion might make fission and therefore the fissile material partly out-of-date, it is believed that eventually it may be possible in the production of nuclear energy to produce more fissile material than is consumed, and that it may be possible in connection with this so-called "breeding process" to substitute the more easily obtainable thorium for uranium to a large extent. For the time being, in any case, utilitarian considerations are overridden by the higher motive of the defence of the free world.

If the possible eventuality foreshadowed in the last paragraph of the foregoing article were to materialize, considerably

more immediate importance would consequently attach to the Paley Report conclusions on the use of atomic power in industry. The Report is optimistic as regards not only the prospects of immense development in the part to be played by atomic energy in industrial development in future years, but in the indications of its potentialities as a source of economic power.

The report says: the chief use, outside of military purposes, presently visualized for uranium and its nuclear derivative, plutonium, and of thorium and its nuclear derivative, uranium 233, will be for producing energy through release of nuclear energy.

Here technology faces an unprecedented challenge, which if met successfully might double or triple the world's reserves of energy. According to a pre-war estimate, the mineable reserves of these atomic energy materials in the United States were £100,000,000, and those probable mineable were 1 billion pounds. If we assume the complete conversion of these materials into fissionable material—an achievement towards which experimental research has long been directed—the energy producible from the lower amount alone would be equivalent to all present fuel consumption for a period of 100 years, or all electric power for a period of 1,000 years.

Since this estimate was made, additional deposits have been discovered in the United States, Canada, and Africa. Studies also are under way to recover uranium as a by-product from phosphate processing and from certain shales. An estimate has been made of the cost of uranium from Swedish shale at about \$23 per lb. On an energy basis this would be equivalent to coal at 2c. per ton. Even assuming a cost 10 times as great, it is evident that the cost of the fuel for energy production from this source would be negligible.

#### PROBLEMS OF NUCLEAR ENERGY DEVELOPMENT

The chief problems in developing nuclear energy for power are first, to develop a "breeder" reactor, i.e., one which produces fissionable material at a rate at least equal to its consumption; and second, to produce an efficient reactor at low cost. As to the first problem, an experimental power breeder has been designed to produce plutonium from uranium and is being tested at Arco, Idaho. Various other designs have been studied. The technical consensus appears to be that breeder reactors will ultimately be successful.

The problem of designing a reactor to produce power at costs competitive with conventional systems is being studied currently by industrial and utility groups associated with the Atomic Energy Commission. Such a reactor substitutes for the conventional furnace in a thermal power plant, but because of the nature of the reaction and the fact that, within its shields, the reactor and all its materials become dangerously radioactive, all processes and operations are difficult and expensive.

An important economic advantage of atomic power is that, not only is nuclear fuel cost relative to energy produced almost negligible, but the bulk of fuel required is small—an important consideration for areas remote from conventional fuel sources. These two factors open up the possibility of providing energy for developing and processing resources in areas now considered too inaccessible to be economic. Mining and beneficiating, and possibly even smelting, operations for valuable materials in such areas, would thus become practicable.

The whole field of nuclear energy is in its infancy. A tremendous amount of research is under way, but much more is necessary before any definitive picture for the future can be drawn. Even from our present knowledge,

it becomes evident that atomic energy will some day become a very important factor in the economy of the world. During the next 25 years its total effect on the energy picture may be limited by military use.

## REVIEWS

**Materials Handling in Industry, No. 4 in the Electricity and Productivity Series.**—Published by the British Electrical Development Association. Pp. 142 with illustrations. Price 8s. 6d.

Announced as the first book of its type to be published in Britain, the work under notice has been written with the object of showing how better materials handling can increase productivity and improve working conditions. These considerations are, of course, vital in the world of modern industry, and an added value is given this book by the fact that it facilitates selection of the correct handling equipment for any specific task. The work deals with all types of equipment used in materials handling and is not confined to electrically driven or controlled appliances.

In its early pages the work defines materials handling as "the movement of everything within an establishment" from raw materials and tools to the delivery at loading bay of a finished product as well as the movements of workers in relation to the handling of material. Factors relevant to mechanical handling efficiency are examination of plant layout, the human factor, and such considerations as purchase of the proper handling equipment. Several rules are presented for the correct application of mechanical handling equipment, and the main body of the work continues with full data on overhead runways and lifting equipment, cranes, conveyors, elevators and miscellaneous equipments of all types. Notes are included on floor transportation and storage.

The use of machines to eliminate inefficient manual labour has long occupied the attention of mankind, and it may well be that this book will serve as a modern text book on so important a subject.

**Year Book of the American Bureau of Metal Statistics, 1951.**—Pp. 118. Price \$3.00, post paid.

The work under review is the thirty-first annual issue, and covers statistics compiled during the year 1951. Several interesting details appear within these pages, among which is the fact that world smelter output of copper at 3,211,904 tons established a new record over the previous record figure of 3,145,510 tons in 1943. Consumption for 1951 of the same metal was almost 200,000 tons ahead of the 1950 consumption figure. In addition zinc, both mine and smelter, reached record levels during the year.

Mr. R. R. Eckert is the director, and as usual the Bureau's Year Book contains much valuable information in the form of statistics dealing with the non-ferrous metal industries, dealing in turn with production and consumption, stocks, foreign trade and the like. Metals and precious metals are dealt with in detail and the overall information contained in these pages includes matter in smelting, refining, capacities, reserves and prices.

**Economic and Statistical Bulletin of the Gold Coast, No. 1. April, 1952.**—Published by the Office of the Government Statistician, Accra. Pp. 54. Available from the Government Printer. Price 6s.

An attached note states that the Bulletin under notice will be published quarterly from now on. The volume is presented as marking the first stage in the development of statistics relating to the most important aspects of the Gold Coast economy, and while the subject matter is by no means complete, the compilers note that the progress made to date is nonetheless a considerable achievement.

The tables published deal with aspects of population, its distribution and industrial analysis, labour, and the industries of electricity generation, mining, building and agriculture. Other statistics note facts of external trade, merchant shipping and inland transport, as well as matters of the territory's finance. A useful pamphlet.

## TECHNICAL BRIEFS

### Exploitation of Low Grade Ores

A working party of European and American specialists last month completed a two-day study of methods which might lead to the exploitation of metallic or non-metallic low grade minerals. A more specific description of these minerals is that they are those which are marginal or whose complex nature makes them difficult to treat. The specialists met in Paris at the headquarters of the Organization for European Economic Co-operation, and the study is complementary to research already being undertaken on the conservation and substitution of scarce raw materials.

An exchange of information on available resources in equipment and personnel and on current research took place, and information collected together with supplementary data, will be assembled in a draft report for submission to the Productivity and Applied Research Committee of the O.E.E.C. The experts unanimously agreed on the importance of "certain basic research" as a greater knowledge of the chemical and physical processes involved in what is now regarded as the science of mineral dressing would in due course allow certain types of ores to be employed which at present are considered unusable.

The experts intend to draw the attention of the Productivity and Applied Research Committee to a list of subjects which they consider it would be most profitable to study, and which includes mechanics of grinding; classification of very fine sizes, dense medium separation of fine sizes smaller than 10 mesh or 1.5 mm.; flotation of certain oxides; flotation of certain oxidized or weathered ores such as those of lead, zinc, copper and nickel; influence of soluble salts in flotation; beneficiation of slime by method of selective coagulation; electrostatic separation having in view conditioning before separation, and pelletizing.

### Magnetic Permeability Tests Alloy Steels

A practical instrument has been developed for non-destructive testing of certain alloy steels exposed to high temperatures, according to a report in *Industrial & Engineering Chemistry*. The instrument employs the magnetic permeability of the metal to discover weaknesses in welds and other areas that need patching or replacement. Known as the Magneprobe and manufactured by the American Instrument Co., the instrument takes advantage of the fact that certain steel alloys tend to become magnetic as their physical strength decreases. In appearance, it is a box-like device with a meter on its face on which the magnetic variations of the metal are indicated, with a probe connected to the instrument by a 5 ft. flexible cable.

Basically, the instrument is a sensitive stable inductance bridge, requiring only 5 watts for operation. The probe forms one arm of the bridge, and an adjustable reference inductance contained within the box forms the other arm. The probe is an inductance coil wound on a core arranged so that the metal to be tested forms part of the magnetic circuit when the probe is placed against it. The inductance of the probe is proportional to the permeability of the metal, and the degree of unbalance is indicated on the meter.

In testing heat-resisting alloys suspected of weakness from prolonged exposure to high temperatures, it appears that where the surface areas of such metals reflect values greater than 25 on the meter, a weakness is indicated that requires patching or replacement. In testing welds that have been exposed to excessive temperatures, indications greater than 15 signify weaknesses in the weld.

### Copper From Mine Water

The Britannia Mining and Smelting Co., Ltd., of Britannia Beach, B.C., recover over a ton of copper sulphate per day from copper which is precipitated from the mine water. Two thousand pounds of the wet precipitate is spread on wooden trays to a depth of 2 in. This is then sprinkled with a solution of 80 lb. of ammonia and 80 lb. of water, raked, and allowed to oxidize for 15 hours. The cake is then transferred to a ball mill where it is ground at 50 per cent solids. The ball mill discharge is then passed to a leaching tank to

which is added 1,300 lb. of sulphuric acid. After air agitation for 10 hours the solution is allowed to settle and the clear copper sulphate solution pumped off to the stock tank. Water is added to bring the strength to 15 per cent and the sulphate is then used in the mill in the flotation of sphalerite.

### Cathodic Protection for Oil Tanks

Because cathodic protection appears to be a practical method for preventing corrosion of oil pipelines and storage tanks buried in the soil or submerged in water, a refinery in America has recently installed such a system to protect nine 100,000 barrel tanks and three 80,000 barrel tanks. The tanks, which were about 25 years old, had developed leaks in the bottoms and suffered severe metal deterioration around the outer rims, from the perimeter inward to a depth of 15 ft., and at joints where roof-support columns connected with the bottoms, according to a report in *Petroleum Processing*.

The cathodic system involves the continuous flow of electric counter-currents to the structure that is to be protected. To be effective, the current flow from the soil to the structure must be sufficient to maintain a constant voltage of 0.85 between the structure and the copper sulphate electrode in contact with the soil. The refinery used an 80,000 barrel oil-storage tank for test purposes. Two-and-a-half years after the test installation, test sections of the metal tank showed no active corrosion. Although the tank was not a new one, previous pits and corrosion areas in the test sections had remained inactive during the entire test period. As a result of this test, the method was then applied to the other tanks.

Current intensity requirements to ensure protection were 1.3 milliamps per sq. ft. for the 100,000-barrel tanks and 0.76 milliamps per sq. ft. for the smaller tanks. Line voltage at the rectifiers averaged approximately 14.3 volts for the larger tanks and 7 volts for the smaller ones. Power consumption per month was about 410 kW. and 88 kW., respectively.

### Diamond Orientation in Drills

The problems of diamond orientation in drill bits has been discussed at some length by E. P. Pfeider (*Min. Eng.* 1952, 4, 177). It has been found that the best results, both with regard to total footage and speed of cut, are obtained by setting the diamonds with an octahedral face leading and the axis trailing 30° behind the normal. If this position is reversed then higher initial cutting rates are obtained but there is rapid breakage of the diamond. If other orientations are used then the diamonds are gradually polished down to flat surfaces with very low cutting rates.

### New Cold Galvanizing Compound

A new compound for cold-galvanizing steel and iron for surface protection has been developed by the Galvanite Corp. of America, according to a notice in *Steel*. It differs from other metallic paints containing zinc, in that iron and steel surfaces coated with it create an electro-chemical reaction, uniting the zinc with the base metal surface, which provides true cathodic protection. It leaves a coating of 96 parts, by weight, of pure zinc.

The trade name of the compound is "Galvanite," and can be applied with a paint brush, spray gun, or by cold dip. Within 40 minutes of application, the coating is said to be tack-free, and it dries for use within 48 hours.

The compound gives effective results on any structure from an iron or steel bridge to a rusted surface. Marine users have found that when applied directly to a ship's hull, the coating will prevent sea growth, corrosion and electrolysis. In instances where the coating is applied directly on to adhering rust, it induces the rusted area to create its own non-flaking coating, stopping further rusting and preventing rust-creep. A further advantage of this method of galvanizing is the elimination of the costly and time-consuming necessity of dismantling equipment. The compound can be applied directly to the metal to be protected, regardless of size. A single brush coating gives a coverage of approximately 625 sq. ft. per gallon.

## METALS, MINERALS AND ALLOYS

The Joint Congressional Committee on Defence Production announced this week that in terms of dollars the stockpile programme is now past the half way mark. Out of 75 materials being stockpiled, the programme for 20 has been completed, for a further 26 is proceeding satisfactorily and in the case of a further 5 materials, which were in critical supply, the problem has been solved by the development of substitutes. This leaves 24 items which continue to present difficulties. Discussing these the Committee reiterated that steel, copper and aluminium would require the continuance of the Controlled Materials Plan well into next year. The steel strike and aluminium losses due to the drought no doubt are contributory causes but in the case of copper the Committee allows that the picture is now considerably improved, although very little of the copper lent from the stockpile has yet been repaid. The Committee regards the supply of those metals required for the high heat ferro-alloys as presenting the most difficult long term problem.

**COPPER.**—There is no further news this week regarding the Copperbelt dispute although the composition of the Tribunal should shortly be announced. On page 601 our Rhodesian correspondent gives an interesting analysis of the motivation of the strike, which he estimates to be as much political as economic.

December copper sales in the U.S. are going well and it is expected that consumers will again take up all foreign copper available. The G.S.A. is reported to be buying some of the higher priced domestic copper for the stockpile.

The contrast between active buying in America and the inactive European copper markets still persists, and there have been instances both in the U.K. and on the Continent of consumers seeking to postpone deliveries. Earlier this week free market copper was being quoted at around £280 to £290 per ton c.i.f., equivalent to between 35c. and 36c. per lb., and in the present state of European demand quite a bit of copper must be finding its way to the States.

The following are the American Copper Institute figures of world refined copper production for October, expressed in thousands of tons:

	Production			Stocks		
	Oct., 1952	Jan.-Oct., 1952	Jan.-Oct., 1951	Oct. 31, 1952	Sept. 30, 1952	Oct. 31, 1951
U.S.A. ....	106	975	998	60	71	78
Other countries	91	1,009	1,013	144	157	170
World .....	197	1,984	2,011	204	228	248

**LEAD.**—The New York price has eased to 14c. since last week, apparently reacting to the decline which has taken place on the London market. However, with the London price firming up again during the last day or so, the 14c. level appears to be holding although little business has been done.

Half-year smelter output figures are now available from the American Bureau of Metal Statistics for all free world producers other than the Argentine, and are published on the opposite page. It will be seen from this table that last year's rate of output was maintained for the first part of the year although probably some decrease must be looked for in the latter part of the year having regard both to falling price and to the decline in consumption at a time when the U.S. stockpile for this metal cannot be far off completion. In this connection U.S. consumption during the first eight months of this year is reported at 722,219 tons against 838,264 in the corresponding period of 1951. Coupled with the decline in U.K. consumption of some 42,000 tons in the first nine months of this year against the same period a year ago, indications are that the combined U.S. and U.K. consumption may on the whole year be down by as much as 175,000 tons.

The effect of the price fall on production is becoming increasingly apparent with the news that the International Smelting & Refining Co.'s lead smelters at Tooele, in Utah, is to be closed next January. Last year this plant produced 33,000 tons of pig lead. Such developments must strengthen the hand of

those in the trade who are now preparing to lobby the Tariffs Commission for higher protective duties. The attitude of the new administration to this fundamental issue must be awaited with some anxiety. Already in recent weeks German and Italian lead-zinc producers have been talking about the need for protection, and the repercussions of increased American tariffs would set a most unfortunate example.

**TIN.**—U.S. tin stocks, aside from the stockpile, had by the end of August staged a notable recovery from the crisis level to which the R.F.C. had allowed them to sink at the beginning of the year. At August 31 the U.S. Bureau of Mines reports the figure to have been 62,000 tons, equivalent to about nine months' consumption at the 1951 rate, or probably nearer seven months under conditions of uncontrolled civilian use.

As, in the three months since the end of August, private import of tin into the States has been permitted side by side with imports on Government contract, it seems probable that stocks have risen further in this period. In these circumstances it may be wondered how much longer the R.F.C. buying price of 12½c. will continue to bear any close relation to what American industry will be willing to pay, bearing in mind that perhaps as much as 40 per cent of U.S. consumption next year is likely to be imported—mainly through the London and Singapore markets—by private traders who are not committed to long term buying contracts. With the R.F.C. committed next year, under the Indonesian and Congo contracts, to some 30,000 tons at 12½c. and the possibility that a portion of this will find no buyers outside the stockpile, it is difficult to visualize any long term Bolivian contract at so high a figure. However, something definite may emerge on this point from negotiations which are currently proceeding between the Bolivian Ambassador in Washington and the Administration. All in all we cannot but feel that it might be both a chastening experience for the new Bolivian regime and more profitable for the U.S. industry, if the R.F.C. were to refrain from further bulk buying and leave Senor Andrade's government to market its tin under those conditions of free trade and private enterprise to which it seems so ill-disposed.

The following are the Tin Study Groups September tin-ore output figures for the main producing countries, expressed in long tons:

	September, 1952	Jan.-Sept. 1952	Jan.-Sept. 1951
Belgian Congo .....	868	9,620	9,526
Bolivia * .....	2,969a	22,342b	22,285c
Indonesia .....	2,961	25,615	22,780
Malaya .....	4,492	42,294	42,490
Nigeria .....	692	6,071	6,295
Thailand .....	806	6,722	7,084

\*Exports: a—August, 1952; b—Jan.-Aug, 1952; c—Jan.-Aug, 1951.

**ZINC.**—U.S. zinc has been showing some firmness this week at 12½c. without much market activity. Consumers' inventories are tending to fall, while the continued power shortage in the Pacific North-West is still affecting smelter output.

In the U.K., consumers' stocks are also falling. At the end of September they stood at about 1,100 tons compared with 1,800 tons six months earlier. Over the same period the controlled price has fallen from £190 to £110 and will go lower when London Metal Exchange dealings are resumed in January (the free Continental market is currently quoting below £90). Already with zinc at a more competitive price, there are signs of U.K. consumption picking up so that the total for this year is unlikely to be very far short of last year's total of 188,000 tons and next year might well recover to near the 1950 post-war record of 236,000 tons.

An illustration of the possibilities in this direction can perhaps be sought in the range of fabricated items for which zinc and aluminium are competitive. Here it must be remembered that over the last six months aluminium has increased from £148 to £166 per ton while the zinc price has been falling by over 40 per cent.



Meanwhile, as is indicated by the production figures in the table below, free world production for the first six months of this year maintained the record rate achieved in 1951. Figures for the second six months of the year are, however, likely to be reduced as marginal mines have been closing.

**ALUMINIUM.**—Another U.S. aluminium producer has now entered the lists in the D.P.A.'s current, or so called third round, expansion programme. Olin Industries has been allotted more than half the 200,000 tons additional capacity called for by this stage of the programme. The Olin plant will have a primary smelter capacity of 110,000 tons and amortization allowances against tax to the extent of 85 per cent of the capital have been granted. This development is in line with the Administration's policy of bringing new producers into the field. It will be recalled that at a previous stage in the expansion programme, Anaconda secured a footing in the industry and it will be interesting to see whether Kennecott, who are known to be interested, secure the remaining 90,000 tons of the third round target.

**NICKEL.**—Yet another expansion programme has been scrapped by the U.S. Defence Production Administration. The plans to increase the supply of nickel from 101,000 tons in 1951 to 132,000 tons by 1954 are now considered to be inadequate, and a total U.S. supply of 190,000 tons by 1955 is now demanded. The N.P.A. has been quoted as saying that in spite of published statements to the contrary nickel is still very tight and is expected to remain a critical material even though some new production is expected next year.

**TUNGSTEN.**—The N.P.A. is reported to be considering the ending of domestic allocations of tungsten and of the control of end uses. Action, in this connection, is expected before the end of January. The U.S. is at present getting more than half the free world's production of this metal.

In Uganda, the Government, working closely in conjunction with the newly formed Mining Association, has arranged with the Ministry of Materials to offer to buy all wolfram produced in the Colony over the next five years at current London market prices subject to a guaranteed floor price of 250s. per 1 ton unit delivered London. All the main Uganda wolfram producers have accepted this offer and the Government has reached complete agreement with the Mining Association on the steps to be taken on the development and assistance of the wolfram industry in the Kigezi district.

#### LEAD AND ZINC HALF-YEAR PRIMARY SMELTER PRODUCTION (Excluding Iron Curtain countries and the Argentine)

	LEAD		ZINC	
	Jan.-June, 1952	1951 Whole Year	Jan.-June, 1952	1951 Whole Year
U.S.A. ....	260,684*	486,874	489,800*	931,833
Canada .....	89,009	162,712	112,015	219,194
Mexico .....	124,446	219,352	30,378	57,990
Peru .....	25,965	46,524	1,325	1,003
Belgium .....	43,666	77,873	108,710*	221,437
France .....	30,648	53,831	45,096	82,185
Western Germany .....	77,258*	170,766	82,328*	155,024
Great Britain .....	—	—	36,452	78,101
Italy .....	15,847	39,683	29,167	52,058
Netherlands .....	—	—	13,840	24,924
Norway .....	—	—	19,104	44,349
Spain .....	23,087	45,460	11,978	23,444
Japan .....	9,702*	18,516	38,777	62,109
Australia .....	91,173	217,301	47,582	86,264
Morocco .....	16,092	20,287	—	—
Tunisia .....	12,829	25,476	—	—
Rhodesia .....	6,832	15,646	12,875	25,301
Totals .....	827,238*	1,602,601	1,079,427	2,065,216

\*Includes some production from scrap. \*Lead refined from Australian bullion included in figures for latter country.

## The London Metal Market

(From Our Metal Exchange Correspondent)

Tin has continued a rather uninteresting market, and the advance in the latter part of last week has not been maintained, although prices have fluctuated within a moderate range. There has not been very much consumer demand and the market is quite easily influenced by either modest buying interest or offerings. In the East price movements have not been large, but there has been no difficulty in disposing of the daily quantities at fairly steady prices. Continental enquiry has been small, and there has been keen competition for any business going. The Eastern price on Thursday morning was

equivalent to £962 15s. per ton c.i.f. Europe. On Thursday afternoon the London market was steady.

Lead prices have moved within comparatively small limits during the week, and there has been no undue pressure by sellers, whilst consumers seem to have been covering their more immediate requirements steadily. In America, the smelters' price was reduced on Monday by 3c. to 14c. per lb., but this so far has had very little effect on the price here. On Thursday afternoon the market was steady.

There is a very good demand for near copper for Germany and Austria and prices vary between £275 and £290 per ton. Zinc remains a quiet market pending the recommencement of dealings in this metal on the London Metal Exchange on January 2 next, and the price on the Continent is around £85 per ton.

### CLOSING PRICES AND WEEK'S TURNOVER

	November 20		November 27	
	Buyers	Sellers	Buyers	Sellers
<b>Tin</b>				
Cash .....	£968 10s.	£969	£962	£963
Three months .....	£948	£949	£945	£946
Settlement .....		£969		£963
Week's turnover ...		490 tons		575 tons
<b>Lead</b>				
Current month .....	£93 5s.	£93 10s.	£91 15s.	£92
Three months .....	£93 5s.	£93 10s.	£91 10s.	£91 15s.
Week's turnover ...		6,000 tons		5,850 tons

### NOVEMBER 27 PRICES

#### COPPER

Electrolytic ... .. £285 0 0 d/d

#### LEAD AND TIN

(See our London Metal Exchange report for Thursday's prices)

#### ZINC

G.O.B. spelter, foreign, duty paid ... £110 0 0 d/d  
G.O.B. spelter, domestic ... £110 0 0 d/d  
Electrolytic and refined zinc ... £114 0 0 d/d  
Special high grade ... £116 0 0 d/d

#### ANTIMONY

English (99%) delivered,  
10 cwt. and over ... £225 per ton  
Crude (70%) ... £210 per ton  
Ore (60% basis) ... 20s. — 22s. nom. per unit, c.i.f.

#### NICKEL

99.5% (home trade) ... £454 per ton

#### OTHER METALS

Aluminium, £166 per ton.  
Bismuth (5 cwt. lots) 17s. 6d. lb.  
(min. 2 cwt. ex-warehouse) ...  
Cadmium (Empire), 14s. 4d. lb.  
Chromium, 6s. 3d./6s. 7d. lb.  
Cobalt, 20s. lb.  
Gold, 248s. f.o.z.  
Iridium, £60 oz. nom.  
Magnesium, 2s. 10d. lb.  
Manganese Metal (96% - 98%)  
2s. 2d./2s. 3d. per lb. d/d  
Osmiridium, £40 oz. nom.  
Osmium, £65/£70 oz. nom.  
Palladium, £715s./£810s. oz.  
Platinum, £27/£33 5s.  
Rhodium, £42 10s. oz.  
Ruthenium, £25 oz.  
Quicksilver, £70 10s./£71  
ex-warehouse  
Selenium, 25s. nom. per lb.  
Silver 72½d. f.o.z. spot and f'd.  
Tellurium, 18s./19s. lb.

#### ORES, ALLOYS, ETC.

Bismuth ... 65% 9s. 9d. lb. c.i.f.  
60% 9s. 6d. lb. c.i.f.  
Chrome Ore—  
Rhodesian Metallurgical (lumpy) £13 2s. per ton c.i.f.  
" " (concentrates) £13 2s. per ton c.i.f.  
" " Refractory £12 14s. per ton c.i.f.  
Baluchistan Metallurgical £14 15s. 6d. per ton c.i.f.  
Magnesite, ground calcined £26 - £27 d/d  
Magnesite, Raw £10 - £11 d/d  
Molybdenite (85% basis) 105s. 10d. per unit c.i.f.  
Wolfram (65%) 410s. c.i.f. U.K. buying  
432s. 6d. d/d U.K. selling  
400s. c.i.f. U.K. buying  
422s. 6d. d/d U.K. selling  
30s. 8d. nom. per lb. (home)  
Tungsten Metal Powder  
(for steel manufacture)  
Ferro-tungsten ... 27s. 6d. nom. per lb. (home)  
Carbide, 4-cwt. lots ... £32 3s. 9d. d/d per ton  
Ferro-manganese, home £49 0s. 8d. per ton  
Manganese Ore U.K.  
(48% - 50%) 6s. per unit  
Brass Wire 2s. 8½d. per lb. basis  
Brass Tubes, solid drawn 2s. 2½d. per lb. basis

# THE MINING MARKETS

(By Our Stock Exchange Correspondent)

Brokers reported a broader volume of business during the past week. The increase in turnover was chiefly confined to gilt-edged and foreign bonds although there was some slight demand for industrials. There was very little interest in mining markets. Abroad, the £ continues to make headway and transferable sterling is currently quoted at around U.S.\$2.69 against a price of under \$1.90 only two years ago.

The recent harder tendency in Kafirs faded and markets were very idle. There was some profit-taking at the close of the account. Confidence in the political situation is clearly still lacking in spite of the fact that Dr. Malan has decided to accept the ruling of the High Court and to make the constitutional question an election point next Spring. The dividend season is now only two weeks ahead which also encourages a "wait and see" policy. There is mild optimism that some of the June cuts may be partially restored. Johannesburg is taking a keen interest in uranium prospects, especially since the free price of gold continues to fall and revenue from this source is expected to show a further decline in the current quarter. It is believed that the awards for uranium produced have been increased by as much as 100 per cent but official secrecy provides no facts. West Wit Areas are to be quoted on the Paris Bourse which should make a wider market for the shares. Other West Rand issues were mostly firmer.

Free Staters were weak. Union Free State Coal & Gold are to liquidate. No details have yet been supplied but it is believed that the holding of Harmony shares may be distributed to shareholders on a basis of two for every five held. It is possible there may be a small cash distribution as well. Harmony declined following news that water-trouble had been encountered in No. 3 shaft. The announcement that the Freddeys mines are to borrow more money had a depressing effect on O.F.S. shares generally.

West Africans were again very quiet. The Volta River plan for the erection of a power station, dam, irrigation and bauxite mining and smelting plant had no immediate effect on this market.

Diamond shares reacted from their best levels on renewed small selling. Platinum issues, however, were good. Recent reports from the leading companies show considerably increased profits and there has been some investment buying.

Rhodesian copper shares were also well supported, Chartered being in the van. It is calculated in some quarters that this company should continue to do well even if there was a sharp fall in the price of the metal. Substantial reserves are being built up. There was some further enquiry for Rhokana on reconsideration of the facts concerning the floating of the new property. Tanks were also strong on dividend hopes, later justified. The company is paying 40 per cent for the year against 25 per cent.

Tin shares of all groups eased mainly through lack of interest. Some leading Far East issues were undoubtedly affected by the deterioration of the situation in Indo China. It is felt that a Communist success there would radically upset the unstable balance now existing in that part of the world. Beralts were again popular and encountered good buying. The interim dividend is expected shortly. The long term contracts that have been entered into by this mine have a stabilizing effect on the price despite the current high yield.

Lead/zinc shares were off following the easier metal price. Contrary to this trend Mount Isa again improved. There has been some quiet buying of these shares and informed quarters consider that this mine has a big future. Apart from the existing lead deposits, new areas are being opened up and copper production is expected to begin early next year. The Board have been following a conservative policy to the considerable benefit of the company's reserves.

FINANCE	Price	+ or -		Price	+ or -	
African & European	2 1/2		O.F.S.	Not. 26	on week	
Anglo American Corp.	5 1/2	+ 1	Freddies	6 1/2	- 1 1/2	
Anglo-French	17 1/2		Freddies S.	7 1/2	- 6 1/2	
Anglo Transvaal Consol.	22 1/2	- 2 1/2	F.S. Geduld	2 1/2		
Central Mining (1 shrs.)	32 1/2		Geoffries	14 1/2		
Consolidated Goldfields	42 1/2		Harmony	19 1/2	- 10 1/2	
Consol. Mines Selection	23 1/2	- 7 1/2	Loraine	6 1/2		
East Rand Consols.	2 1/2	- 3 1/2	Lydenburg Estates	8 1/2		
General Mining	3 1/2		Merriespruit	3 7/8		
H.E. Prop.	30 1/2	- 30	Middle Wits	14 1/2		
Headerson's Transvaal	8 1/2		Ofits	38 1/2	- 1 1/2	
Johannes	45 1/2	+ 7 1/2	President Brand	17 6/8	- 1 1/2	
Rand Mines	3 1/2	- 3 1/2	President Steyn	16 1/2		
Rand Selection	35 1/2	+ 7 1/2	St. Helena	7 1/2	- 14 1/2	
Sigatshure Consol.	25 1/2		T.F.S.C. & G.	11 1/2		
Union Corp. (2 1/2 units)	29 1/2	- 7 1/2	Virginia Ord.	11 1/2	- 1 1/2	
Verreuging Estates	3 1/2		Welkom	20 1/2	- 9 1/2	
Wits	30 1/2	+ 1 1/2	Western Holdings	3 1/2		
West Wits	41 1/2	+ 1 1/2				

RAND GOLD	Price	+ or -		Price	+ or -	
Blyvoors	41 1/2	- 6 1/2	WEST AFRICAN GOLD			
Brakpan	15 1/2	- 3 1/2	Amalgamated Basket	1 1/2		
City Deep	25 1/2	- 7 1/2	Ashanti	5 1/2	- 1 1/2	
Consol. Main Reef	25 1/2	- 7 1/2	Bibiani	16 1/2	- 7 1/2	
Crown	40 1/2		Bremang	2 1/2		
Daggas	3 1/2		G.C. Main Reef	3 1/2	+ 1 1/2	
Doornfontein	25 1/2	+ 1 1/2	G.C. Selection Trust	8 1/2		
Durban Deep	16 1/2		Konogo	3 1/2		
E. Daggas	16 1/2		Lyndhurst Deep	1 1/2		
E. Geduld (4 1/2 units)	39 1/2		Marlu	1 1/2		
E. Rand Props	5 1/2	+ 1 1/2	Taqaah & Abosso	2 1/2	- 1 1/2	
Geduld	5 1/2	+ 1 1/2				
Govt. Areas	12 1/2		AUSTRALIAN GOLD			
Grootvlei	26 1/2		Boulder Perseverance	2 1/2	+ 1 1/2	
Libanon	10 1/2	+ 1 1/2	Gold Mines of Kalgoorlie	10 1/2	- 3 1/2	
Litpards Vlei	22 1/2	+ 1 1/2	Great Boulder Prop.	6 1/2	- 3 1/2	
Marievale	18 1/2	- 3 1/2	Lake View and Star	15 1/2	- 6 1/2	
Modderfontein East	21 1/2	- 7 1/2	Mount Morgan	18 1/2	- 1 1/2	
New Kleinfontein	12 1/2		North Kalguri	12 1/2		
New Pioneer	12 1/2		Sons of Gwalia	7 1/2	+ 3 1/2	
Randfontein	24 1/2	- 3 1/2	South Kalguri	7 1/2		
Robinson Deep	10 1/2		Western Mining	10 1/2		
Rose Deep	20 1/2					
Simmer & Jack	5 1/2	+ 1 1/2	MISCELLANEOUS GOLD			
S.A. Lands	30 1/2	- 3 1/2	Cam and Motor	45 1/2		
Springs	6 1/2	- 3 1/2	Champion Reef	6 1/2		
Stillefontein	20 1/2	- 4 1/2	Falcon Mines	7 1/2	- 3 1/2	
Sub Nigel	41 1/2	+ 1 1/2	Globe & Phoenix	25 1/2		
Van Dyk	10 1/2		G.F. Rhodesian	8 1/2	+ 7 1/2	
Venterspost	14 1/2	- 3 1/2	London & Rhodesian	5 1/2		
Vlakfontein	14 1/2	- 3 1/2	Metapa	1 1/2		
Vogelstruifuit	29 1/2	- 3 1/2	Myosore	3 1/2		
West Driefontein	5 1/2	+ 1 1/2	Nundudroog	5 1/2		
W. Rand Consolidated	51 1/2	+ 7 1/2	Oreogona	3 1/2		
Western Reefs	41 1/2		Oroville	11 1/2		

MISCELLANEOUS GOLD	Price	+ or -	
(contd.)	Not. 26	on week	
St. John d'El Rey	21 1/2		
Zans	33 1/2		

DIAMONDS & PLATINUM	Price	+ or -	
Anglo American Inv.	4		
Casts	26 1/2	- 8 1/2	
Cons. Diam. of S.W.A.	4		
De Beers Delf. Bear.	64 1/2		
De Beers Pld. Bear.	14 1/2		
Pots Platinaum	8 1/2		
Watersvaal	15 1/2		

COPPER	Price	+ or -	
Chartered	58 1/2	+ 4 1/2	
Esperanza	3 1/2	- 1 1/2	
Indian Copper	4 1/2		
Messina	3 1/2		
Nchanga	6 1/2		
Rhod. Anglo-American	54 1/2	+ 2 1/2	
Rhod. Katanga	16 1/2	+ 1 1/2	
Rhodesian Selection	19 1/2		
Ariston	23 1/2		
Rio Tinto	23 1/2		
Rion Antelope	13 1/2	+ 1 1/2	
Selection Trust	36 1/2	- 7 1/2	
Tanks	6 1/2	+ 2 1/2	
Tharsis Sulphur Br.	41 1/2		

TIN (Eastern)	Price	+ or -	
Yuen Hsin	24 1/2		
Bangrai	7 1/2	- 3 1/2	
Gopeng	10 1/2	+ 4 1/2	
Hongkong	7 1/2	- 1 1/2	
Ipo	18 1/2		
Kamunting	10 1/2		
Kepong Dredging	6 1/2	- 3 1/2	
Kinta Tin Mines	25 1/2		
Pahang	15 1/2		
Pengkalen	9 1/2	- 4 1/2	
Petaling	12 1/2	- 4 1/2	
Rambutan	12 1/2	- 4 1/2	
Siamese Tin	22 1/2		
Southern Kinta	14 1/2		
S. Malayan	25 1/2		
S. Irons	12 1/2		
Sungei Kinta	18 1/2		
Tekka Taiping	7 1/2		
Tromoh	23 1/2		

TIN (Nigerian and Miscellaneous)	Price	+ or -	
Amalgamated Tin	9 1/2	- 3 1/2	
Beralts Tin	34 1/2	+ 1 1/2	
Bisichi	4 1/2	- 1 1/2	
British Tin Inv.	15 1/2	+ 3 1/2	
Ex-Lands Nigeria	4 1/2		

TIN (Nigerian and Miscellaneous contd.)	Price	+ or -	
Geevor Tin	14 1/2	+ 6 1/2	
Gold & Base Metal	3 7/8	- 1 1/2	
Jantara Nigeria	11 1/2	- 4 1/2	
Jos Tin Area	10 1/2		
Kaduna Prospects	3 1/2		
Kaduna Syndicate	3 1/2	+ 3 1/2	
London Tin	5 1/2	+ 3 1/2	
United Tin	2 7/8		

SILVER, LEAD, ZINC	Price	+ or -	
Broken Hill South	41 1/2	+ 7 1/2	
Burma Corporation	1 1/2	- 1 1/2	
Consol. Zinc	24 1/2	- 7 1/2	
Lake George	13 1/2	- 1 1/2	
Mount Isa	34 1/2	- 8 1/2	
New Broken Hill	22 1/2	- 3 1/2	
North Broken Hill	50 1/2		
Rhodesian Broken Hill	14 1/2	- 6 1/2	
San Francisco Mines	24 1/2	- 6 1/2	
Uruwira	3 10 1/2		

MISCELLANEOUS BASE METALS & COAL	Price	+ or -	
Amal. Collieries of S.A.	45 1/2		
Associated Manganese	43 1/2	+ 2 1/2	
Cape Asbestos	17 1/2	+ 3 1/2	
C.P. Manganese	34 1/2		
Consol. Murchison	26 1/2	- 3 1/2	
Mashaba	8 1/2		
Natal Navigation	24 1/2	- 1 1/2	
Rhod. Montello	11 1/2		
Turner & Newall	95 1/2		
Wankie	15 1/2	+ 9 1/2	
Witbank Colliery	53 1/2	+ 1 1/2	

CANADIAN MINES	Price	+ or -	
Dome	\$36 1/2	- \$1	
Hollinger	\$28 1/2	+ \$1	
Hudson Bay Mining	\$103		
International Nickel	\$76 1/2	- \$1 1/2	
Mining Corp. of Canada	\$5 1/2	+ \$ 1/2	
Noranda	\$137	+ \$1	
Quebec	\$94	+ \$1	
Yukon	\$4 1/2	+ 1 1/2	

OIL	Price	+ or -	
Anglo-Iranian	5 1/2	- 1 1/2	
Apex	39 1/2	+ 7 1/2	
Attack	25 1/2	+ 2 1/2	
Burnham	22 1/2		
Canadian Eagle	41 1/2	- 3 1/2	
Mexican Eagle	21 1/2	+ 3 1/2	
Shell (bearer)	78 1/2		
Trinidad Leasehold	27 1/2	- 1 1/2	
T.P.D.	38 1/2		
Ultramar	36 1/2	- 1 1/2	



## COMPANY NEWS AND VIEWS

### The Treasury Makes a Fine Distinction

From evidence accumulated over the past two years it is certain that the Treasury does not subscribe to the maxim, "What is sauce for the goose is sauce for the gander." Just how arbitrary in its decisions the Treasury can be is well illustrated by its recent decisions given to the Johannesburg Consolidated Investment Co. on the one hand, and to the British Burmah Petroleum Co. on the other. Mr. K. Richardson, presiding at the annual meeting of "Johnnies" in Johannesburg last Tuesday, reminded shareholders that the U.K. Treasury had refused to grant permission for the company to transfer its seat of control from the U.K. to South Africa. As is well known, "Johnnies" is not only registered in the Union of South Africa, but by far the greater part of its investments on which its fortunes depend consist of holdings in companies conducting their operations in the Union and other parts of Southern Africa. Notwithstanding these facts, the Treasury not only refused permission to the company to emigrate, but did not even give any explanation for their refusal. Naturally, the company still contends that the transfer of residence would be in the best interests of the company and its shareholders. Meanwhile, as a *pis aller*, the chairman has expressed the hope that the British Royal Commission on Taxation on Profits and Income will feel able to recommend some measure of relief of the present burden of taxation by companies such as his—at least, in cases where profits from enterprise outside the United Kingdom are required to be retained abroad for necessary capital expansion.

As day follows night so we find that the British Burmah Petroleum Co. has managed, without apparently any undue difficulty, to transfer its seat of control from the United Kingdom to South Africa. Mr. A. P. Faickney, in his statement accompanying the annual report and accounts, outlines the case which his company presumably presented to the Treasury for its transference abroad. The arguments were sound. He said that as the company's interests in Burma have shrunk to negligible proportions, so have the company's interests in South Africa expanded. Currently the company, through its wholly owned subsidiary, British Burmah Petroleum Co. (South Africa) Pty., which holds substantial interests in the Anglo-Transvaal Consolidated Investment Co., South African Torbanite Mining and Refining Co., and Masonite (Africa), has embarked on and expanded its industrial activities. Moreover, the company's subsidiary holds the managing agencies of South African Torbanite Mining and Refining Co. and of Colas (South Africa). Mr. Faickney then adds, and rightly, that a realistic view of all these facts and considerations suggested that the administration of the company should be transferred from the United Kingdom to the Union of South Africa. Seemingly this "realistic view" so impressed Her Majesty's Treasury that permission to transfer was granted.

No matter how these two cases are viewed, the common point of contact is that the overwhelming proportion of each company's revenue has arisen from sources outside the United Kingdom. Yet in the one case permission has been refused, and in the other granted. By what policy ruling or precedent the Treasury distinguishes between the merits of these two cases (other than the quite considerable difference in loss of revenue to the Exchequer) is beyond comprehension.

### Mount Isa's Smelter Ready About March, 1953

The feature of the preliminary statement of Mount Isa for the year ended June 30 last was the appropriation from the year's profit of £1,000,000. As stated in these columns last week, this amount is to be used to implement the company's expansion programme including the erection of the new copper-smelting plant which will be in operation about next March.

In the full report and accounts, now available, the directors state that the cost of the copper plant has exceeded the original estimate due to the heavy lead bonus payments and the general increase in construction supplies.

The lead bonus payments have been a real burden and amounted to £A.2,169,066 (£A.1,359,923), or nearly £35,000 more than the company's tax liabilities.

The explanation as to why the smelter will not be functioning until the first quarter of next year is due to delays in the delivery of fabricated structural steel and certain items of plant equipment.

Metal production for the past two years is given in the table below together with proceeds from ore sales.

Year to June 30	Milled tons (000)	Metal Production				Sales* £A
		Silver (oz.)	Lead (tons)	Copper (tons)	Zinc (tons)	
1952	615,215	3,296,147	38,319	616	23,827	10,941,035
1951	559,275	2,651,928	34,650	437	22,946	7,886,685

\*Less transport, refining and realization expenses.

Financial results were given in last week's issue. Net profit was £A.2,179,758 (£A.1,360,842). The dividend was reduced from 25 per cent to 20 per cent. The annual meeting will be held in Brisbane on December 8. Mr. Julius Kruttschnitt is chairman.

### Anglo-Ecuadorian Produces More, Earns Less, Pays Same

Crude oil production of Anglo-Ecuadorian for the year to March 31 last showed an increase of 11,083 tons over the preceding year. Despite this favourable feature the net profit declined, a result attributed to the considerable rise in production costs in the shape of increases in the prices of materials and equipment and the higher wage payments granted under the last collective agreement. Additionally, the cost of maintenance and survey repairs to the existing three coastal tankers was abnormally high amounting to £98,000, while development expenditure exceeded the previous year by £61,080, owing to the increase in the footage drilled from 11,016 ft. to 117,810 ft.

Year to Mar. 31	Output* (tons)	Gross Revenue £	Taxation £	Net Profit £	Divi- dend %	Carry Forward £
1952	269,130	875,302	223,828	172,492	10	145,489
1951	258,047	950,320	234,639	235,731	10	141,558

\*Production of casing lead gasoline was 131,000 bbl. (1951—113,000 bbl.).

Although the continued search for a new deep oil pool was unsuccessful, shallow well development continued satisfactorily enabling the decline in these high producing wells to be offset.

Unless and until there is a marked decline in the cost of materials and labour, the earning capacity of the company appears temporarily restricted as the Government of Ecuador has not authorized any increase in the sales prices of refined products sold within the Republic since 1948, while the prices on which the company's export sales of crude oil are based have remained unchanged since the end of 1947. Whether or not the Ecuadorian Government can be prevailed upon to face the fact that increases in the cost of labour and materials now bears no relation to the prices of refined products fixed four years ago remains to be seen.

The annual meeting will be held in London on December 2. The Rt. Hon. Lord Forbes is chairman.

### Rosterman Gold in 1951

The operating results, detailed below, of Rosterman Gold Mines for the year 1951 tell their own story. The big percentage decline in tonnage throughput pushed costs up past the point of economic mining, and although the grade of ore sent to the mill was relatively high, the company's mineable ore is widely dispersed and ore reserves during the year were reduced to negligible proportions. Consequently, the company ceased to issue monthly production figures last February and for all practical purposes the mine has ceased to operate.

Year to Dec. 31	Milled (tons)	Grade (dwt.)	Yield (oz.)	Cost per ton* s. d.	Ore Reserves (tons) (dwt.)
1952	28,497	7.7	10,972	83 1	17,845 6.28
1951	42,195	6.2	13,171	61 8	52,105 7.16

\*Including development charges of 7s. 4d. (1951—4s. 6d.).

The profit and loss account reflects this situation and a net loss was incurred on the year's operations of £1,485. The debit balance carried forward at the end of 1951 was £41,426 compared with £39,874 brought in.

No mention has been made in the report and accounts now issued of the company's recent arrangement with Kabale Mining under which it will participate through a shareholding, in benefit's expected from exclusive prospecting licence in Uganda over areas from which wolfram is already being won, nor of its interest in another development syndicate which is examining a substantial body of graphite situated between Nairobi and Mombasa. No doubt information on these two projects will be forthcoming at the annual meeting to be held in London on December 16. Mr. A. H. Moring is chairman.

#### Mawchi Mines—No Change

Peaceful conditions have not yet been restored to the territory in which the mining property of Mawchi Mines is sited and the area remains under the control of Karen forces, state the directors in their report accompanying the accounts for the year ended March 31 last. Transport routes to Rangoon, they add, remain closed and the only route by which contact with the mine can be maintained is by a difficult and uncertain means of communication via Siam. Consequently, no mining operations were carried out by the company during the year, but tributaries, working on the company's properties by permission of the local authorities, are believed to have recovered 139 tons of concentrates.

The care and maintenance of the company's assets at the mine, and provision for depreciation resulted in an expenditure of £44,201. Other outgoings, including interest on the 5 per cent convertible notes, brought total expenditure for the year to £52,308, and thus the carry forward on the profit and loss account was reduced by this amount and at the end of March last stood at £167,957.

Negotiations for joint venture arrangements with the Government of Burma have not advanced beyond the preliminary stage reached last July when Mr. George P. Joseph, chairman, interviewed Mr. U. Kyaw Thein, Secretary to the Ministry of Industry and Mines. At that time both parties agreed that a joint venture arrangement would be in the best long-term interests of the country and should be commenced without unnecessary delay.

The annual meeting will be held in London on December 18.

#### Harrisons & Crosfield Strong Financial Position

Harrisons & Crosfield, the important Eastern import and export merchants, experienced another prosperous year.

During the year to June 30 last, the consolidated profit and loss account revealed that group trading profits improved from £1,571,344 to £1,688,584. Income from paid investments at £110,196 (£102,827) was the other substantial revenue bearing item which helped to raise gross income from £1,704,118 to £1,822,756. After providing for all expenses including U.K. taxation, amounting to £817,673 (£742,852) and minority interests of £6,758 (£14,328), the net profit attributable to the parent company was £680,356 against £618,802 in the preceding year.

From the £1,440,755 (£1,077,081) available, the parent company allocated £60,000 (£100,000) to a reserve to cover unremitted profits earned in territories from which the transfer of funds is restricted, bringing this account up to £210,000. The opportunity was taken to transfer to dividend equalization reserve £200,000 (nil) making that reserve £250,000, which, the directors state, it is intended to draw upon if the need should arise. General reserve received £471,537 (£69,968) bringing that account up to £1,000,000. The aggregate dividend distribution was maintained on the deferred ordinary stock at 30 per cent absorbing £152,408 which included the distribution of 10 per cent for the year on management shares. The carry forward of the parent company at the financial year end was £233,889 (£258,770), and the amount carried forward by the subsidiary companies was £322,921 compared with £283,039 brought in.

The year's operations materially assisted in consolidating the group's already strong financial position. Total reserves, including undistributed profits applicable to the stockholders of the parent company, at the financial year-end amounted to £3,442,040—an increase of £775,625. Net current assets totalled £4,514,027 compared with £3,971,640 in the previous year.

The annual meeting will be held in London on December 16. Sir Eric Miller is chairman.

#### Perak River Hydro-Electric Pays Off All Arrears

Partly due to the greater number of units sold and partly to an upward adjustment in its rates, the Perak River Hydro-Electric Power Co. during the year to July 31 last was able to record an expansion in its gross revenue from £1,138,781 to £1,266,709. Total operating expenses at £509,236 were £48,500 in excess of the preceding year's figure, thereby indicating the extent of the rise in the cost of both labour and materials. Nevertheless, the working profit of £757,473 contrasted happily with the preceding year's figure of £678,045. Though the tax attracted on the year's profits was up from £300,000 to £381,839 if it had not been for the substantial increase in the allocation to the depreciation account of £250,000 against £107,150, the freely available balance of £132,777 would have continued to contrast favourably with the previous year's figure of £164,201.

The sum of £75,000 (nil) was allocated to general reserve, no less than seven years' arrears of preference dividend to July 31, 1951, were paid off together with the dividend due for the year under review. This required a total amount of £262,500, leaving a balance of £103,403 (£100,626) to be carried forward.

That the company has been able to pay off seven years' arrears without showing a reduction in its forward balance was due to its being able to write back into the profit and loss account £200,000 which had been over provided for tax liabilities in previous years.

More than 90 per cent of the electrical power distributed by the company is supplied to the Malayan Tin Mining Industry, a fact which led the company to believe that its war damage claim should have been included in the "Tin" category. This view was not accepted by the Malayan War Damage Claims Commission so that the first interim payment received from the Commission on its final award of £537,354, was 30 per cent of this figure, equivalent to £161,206, rather than 75 per cent which it would have been had its claim been included in the "Tin" category. The final award of £537,354 compares with the company's adjusted claim of £685,830.

## Company Shorts

#### Freddies North and South Each Require £750,000 More.

It will be recalled that at the annual general meetings of Freddies North and South held in May of this year, shareholders were advised that in order to provide the additional funds necessary to bring the two mines to production at the rate of 50,000 tons milled per month, arrangements were made with Johannesburg Consolidated Investment and the Anglo American Corporation of South Africa whereby these companies undertook to lend up to £2,000,000 to each company in the proportion of 91.25 per cent and 8.75 per cent respectively.

In circulars issued by the two companies at the beginning of this week, it is stated that further funds up to £750,000 in excess of the £2,000,000 referred to above would now be required. To provide this additional capital, arrangements have been made with the Diamond Corporation whereby the Corporation will advance £750,000 to each company, the respective loans to bear interest at the rate of 6 per cent per annum and being payable by the end of 1954. The loan and interest on this additional sum has been guaranteed by Johannesburg Consolidated Investment.

Out of the total loan facilities of £2,750,000 which have been arranged for both companies, each company has drawn £1,750,000 to date.

**Cam and Motor Has a Good Year.**—Cam & Motor Gold Mining Co. (1919) during the year ended June 30 last dealt with 25,000 tons more than in the preceding year.

Year to June 30	Milled (tons)	Grade (dwt.)	Yield (oz.)	Per ton milled Revenue s. d.	Cost s. d.	Working Profit £
1952	269,500	4.8	65,732	61 8	33 8	377,027
1951	244,500	4.5	55,136	55 6	32 4	283,578

The grade remained practically unchanged with the result that gold production was some 10,000 oz. higher. Costs were held down to a rise of 1s. 4d. per ton, but revenue improved by 6s. 2d. per ton.

Year to June 30	Gross Revenue £	Expenses £	Tax £	Net Profit £	Divi- dend %	Carry- dend Forward £
1952	381,909	53,117	148,157	180,635	36	59,340
1951	289,444	37,530	102,000	149,914	36	47,455

These good results were reflected in the profit and loss account and even after allowing for larger outgoings and heavier tax liabilities, net profit was appreciably higher than in the preceding year. The distribution was maintained at 4s. 6d. per 12s. 6d. stock unit on the £468,750 issued capital and the forward balance at the financial year end showed an improvement of £11,885.

The annual meeting will be held in Salisbury, Southern Rhodesia, on December 12. Mr. Bailey Southwell is chairman. Subsequently an extraordinary meeting will be held to approve a resolution splitting the shares into 2s. 6d. each.

**Coronation Pays More.**—Registered in South Africa, Coronation Syndicate's three chief income producing assets, the Muriel Mine, Tebekwe Mine, and the Arcturus Mine, are situated in Southern Rhodesia. Of these three operating mines, Muriel and Arcturus showed better results for the year to June 30 last—Muriel's profit, after providing for depreciation, was £50,982 (£28,256) and the profit of Arcturus, before providing for depreciation, was £541 up at £18,959. The Tebekwe Mine, owned by the Homestake Gold Mining Co. itself a wholly owned subsidiary, unhappily showed a decline in profits, before providing for depreciation and taxation, from £47,139 to £20,758.

Coronation Syndicate's 25 per cent interest in the Pickstone Mine Syndicate was disposed of during the year at a profit of £18,004.

The consolidated profit and loss account of Coronation syndicate for the year to June 30 last showed that the net profit, after providing for all expenses including £16,668 (£25,317) for taxation, was £57,763 against £50,809 previously. The dividend was raised from 7½ per cent to 10 per cent which absorbed £40,250 (£30,188) and, after providing a further £7,500 for shaft depreciation, the carry forward was £84,852 against £70,366 brought in.

At the end of the financial year the company added another income producing asset to its portfolio, the Vubachikwe Mine now worked on tribute, and it is hoped that revenue will be forthcoming from this new acquisition before the end of the current financial year.

The annual meeting will be held in Johannesburg on Dec. 15. Mr. J. H. Mitchell is chairman.

**London & African Pay Maiden Dividend.**—The full report and accounts of London & African Mining Trust for the year ended September 30 last makes interesting reading.

For the first time since the company was registered in 1938 a dividend has been declared. The 5 per cent distribution now proposed follows the reorganization of the company's capital structure in January last which had the net effect of decreasing the issued capital from £468,764 to £187,506 and of extinguishing the debit balance which had grown through the years to £281,259.

Although the twelve months' period covered by the report and accounts was generally accepted as a difficult year for profitable share dealings, especially in "West Africans," the company managed to record a profit of £9,366 (£12,164) on realization of investments. Dividend income advanced from £11,578 to £14,036 and with an improvement in sundry revenue from £360 to £1,363, gross revenue was slightly higher than in the preceding year—£24,765 against £24,102. After providing for all expenses the freely available balance of £17,197 compared with £14,196 previously. This enabled a maiden payment of 5 per cent, as well as an allocation of £10,000 (nil) to investment reserve. The carry forward at the financial year-end was £2,275.

The bulk of the company's quoted investments is in Premier Consolidated Oilfields and Gold Coast Selection Trust, although it has substantial holdings in Amalgamated Banket Areas, Ariston, Bisichi Tin and H.E. Proprietary. Book values of these holdings were given in the latest balance sheet at £167,704 with a market value of £166,928. Unquoted investments stand at £62,093, representing the company's holding in Mine Development Syndicate (West African) whose properties are under option to the American Smelting and Refining Co. This company is carrying out an extensive and thorough examination of lead and zinc deposits in Nigeria and should these investigations prove to be successful, the potential value of this holding may be considerable.

The annual meeting will be held in London on December 15. Mr. W. J. C. Richards is chairman.

**Transvaal & Delagoa Bay's Lower Profit.**—The gross revenue of Transvaal & Delagoa Bay for the year to August 31 last at £125,872 registered a decrease of £59,350, the contributing causes of which were the reduction in trading profit by £16,972 to £9,720, due to the necessity of writing down certain shares to their market value and to the loss sustained on the realization of government securities. Additionally, profits from the

sale of properties contracted by £79,436 to £17,211, although dividend income was up by £37,058 at £98,941.

This short-fall in earnings compared with the previous year, was carried through to the net profit which, after providing for all expenses (no tax was payable during the current year), was £108,071, a decrease of £62,446. The total dividend distribution was lowered to 30 per cent (32½) equivalent to 6s. per £1 share on the issued capital of £360,750 and required £108,225. The carry forward at the financial year-end at £288,074 showed an increase of £3,243.

The annual meeting will be held in Johannesburg on December 11. Mr. W. M. Berlein is chairman.

**Sherwood Starr Makes Steady Progress.**—The Profit and Loss Account of Sherwood Starr Gold Mining Co. for the year ended June 30 last showed virtually no change from the results announced in the preceding year. The profit before tax was £9,956 (£9,386), taxation took £3,483 (£3,003), the dividend distribution was maintained at 5 per cent—equivalent to 3d. per share—absorbing £6,250, and the carry forward at the company's financial year-end was £580 compared with £366 brought in.

Net current assets, as at June 30, amounted to £95,046 compared with £52,197, the increase being chiefly due to the sale of the company's 25 per cent interest in the Pickstone Mine which was purchased at the end of January 1952 by Cam & Motor Gold Mining Co.

The annual meeting will be held in Salisbury, Southern Rhodesia, on December 12. Mr. Bailey Southwell is chairman.

**Van Ryn Invests in Base Metal Property.**—The profit and loss account of Van Ryn Gold Mines Estate for the year ending June 30 last showed that the net profit, after providing for all expenses including £4,698 (£7,513) for taxation, was £17,064, compared with £20,551 in the previous year. The feature of the accounts was the appropriation of £64,500 (£1,500) to bring the book value of the company's investments in line with their market value as at June 30 last. The carry forward at the company's financial year-end was £149,487 compared with £200,897 brought in.

During the year the company invested £66,000 in Argent Lead & Zinc, which company was formed under the auspices of New Consolidated Gold Fields, in conjunction with General Mining & Finance and Anglo American Corporation of South Africa. Opening up the property has begun and it is anticipated that it will take some two years before mining operations will commence.

The annual meeting will be held in Johannesburg on December 3 after which an extraordinary meeting will be held at which shareholders will be asked to approve a change in the company's capital structure and the return to shareholders of 1s. per share.

Sir George W. Albu is chairman.

**Barclays Bank (D. C. & O.) Maintain Dividend on Larger Capital.**—The preliminary statement giving results of Barclays Bank (D. C. & O.) for the year ended September 30 last showed that net earnings expanded by £110,307 over the previous year.

Year to Sept. 30	Net Profit*	Appropriations Reserve Fund	Premises Reserve	Dividend %	Carry Forward
	£	£	£		£
1952	879,888	300,000	175,000	8½	389,629
1951	769,581	250,000	200,000†	8	299,103
					225,846

\*After payment of all charges, including taxation, and after deducting transfers to inner reserves out of which reserves provision has been made for diminution in value of assets.

†On increased capital.

‡This allocation refers to the writing down of investment in Barclays Overseas Development Corporation. There was no allocation to premises reserve in 1950-1951.

The improved results enabled the total allocation to reserves to be increased by £25,000 to £475,000 and to maintain the dividend at 8 per cent on the "A" stock and "B" shares. This was, however, distributed over an increased issued capital and cost an additional £90,526 net compared with the preceding year.

**Australia and New Zealand Bank Maiden Report.**—The financial results of Australia and New Zealand Bank for the year ended September 30 last, given in last week's issue, recorded that the carry forward at the company's financial year end amounted to £A.1,262,687 against £A.1,212,122 brought in. This latter figure should, of course, have read £A.1,212,122.



## JOHANNESBURG CONSOLIDATED INVESTMENT COMPANY

### MR. K. RICHARDSON'S SPEECH

The Annual General Meeting of shareholders of Johannesburg Consolidated Investment Co. Ltd., was held on Tuesday last in Johannesburg.

Mr. K. Richardson, who presided, in the course of his speech said: The chairman, Mr. H. J. Joel, has asked me to express his regret that he is unable to be present to-day.

Owing to very much reduced activity on the stock and share markets, few opportunities have existed during the year for dealing profitably. Dividends received have, however, been maintained and the net profit after charging a full year's interest on the 41 per cent loan stock was £1,444,237 as compared with £1,628,647 for last year. After charging taxation and adding £372,560 brought forward from 1951, the amount available for dividend and other appropriations was £1,211,258. A sum of £500,000 has been transferred to investment reserve, which now amounts to £1,441,992. There has been no appropriation this year to general reserve, which still stands at £3,500,000. Dividend No. 60 of 3s. 6d. per share, less United Kingdom income tax at the standard rate of 9s. 6d. in the pound, absorbed £362,906, and, after the transfer to investment reserve, the balance of profits carried forward amounted to £348,352, reflecting a decrease of £24,208.

The adjustment in respect of fluctuations in the values of investments resulted in a deduction of £923,135 from the investment reserve.

### GOLD MINING INDUSTRY

Working costs have continued to rise and, in June 1952, the average figure for the Transvaal mines, which are members of the Chamber of Mines, was 33s. 5d. per ton, compared with 32s. 3d. in June 1951, being an increase of 3.6 per cent, as against the increase of 9.9 per cent for the corresponding figures last year. This upward trend still remains a matter of grave concern for the gold mining industry.

Revenue from gold sold at enhanced prices during the year under review amounted to £5,043,000, which is equivalent to a premium of 8s. 8d. per oz. on all the gold produced during that period, and reflects a decrease of £419,000, or 10d. per oz., as compared with the corresponding figures for 1951.

There is a persistent shortage of skilled European labour and of native labour to fulfil the requirements of the country, and the mining industry continues to suffer from shortages in respect of all types of labour.

The Prime Minister, in opening the first uranium recovery plant at the property of West Rand Consolidated Mines Ltd., on October 8, 1952, stated that the annual gross revenue from uranium, when full production is reached, is likely to be in the order of £30,000,000 per annum. The value of the gold produced by all mines, members of the Transvaal Chamber of Mines, for the twelve months ended June 1952 was £143,000,000, and it will therefore be realized that the potential revenue from uranium will be of considerable importance. So far thirteen mines have been selected to produce this mineral and the first mine is already in production.

The setting up of this industry has been made possible by the provision of resources, both financial and material, from the United States of America and the United Kingdom, and without such assistance the new industry could not have been established at the present time with the limited financial and material resources available in the Union.

### ORANGE FREE STATE

Progress in the Orange Free State goldfields continues satisfactorily. Development is proceeding on seven mines from thirteen shafts, and at September 30, 1952, a total of 101,997 ft. of development had been accomplished on basal reef; 101,225 ft. had been sampled, and of this 50,481 ft. proved to be payable.

In spite of difficulties which have been encountered in the form of water, gas, and shale, it is evident that the technical mining problems are being overcome. In fact, at two mines milling has started and the total combined tonnage which they had crushed to the end of October 1952 amounted to 1,126,000 tons.

The other main problem is that of providing sufficient finance to enable the huge projects which have been planned to be brought to fruition. So far the amounts either already raised for all mines in the Free State, or in respect of which financing arrangements have been made, total some £103,000,000.

In certain instances further finance will be required to complete the programmes envisaged, and it is to be hoped that conditions in this country and overseas will be such that the necessary capital funds will be forthcoming.

These conditions are undoubtedly being hampered by the heavy burden of taxation in most countries, but particularly in the United Kingdom, as affecting both the general investor and financial institutions.

The report was unanimously adopted.

## HARMONY GOLD MINING CO. LTD.

The Second Annual General Meeting of shareholders was held in Johannesburg on November 21, 1952.

Mr. G. V. Richdale, Chairman, presided and said: Gentlemen, sinking conditions at No. 3 Shaft, which has now reached a depth of 4,050 ft., have become increasingly difficult since June 30 owing to faulting and the intersection of water-bearing fissures. Between July 1 and September 30 no less than 73 per cent of the total time available was absorbed in the treatment of ground by advance cementation. The estimated depth of the Basal Reef in this shaft is 4,910 ft. and it is now likely that it will be intersected early in the second quarter of next year. The final depth of the shaft will be approximately 5,340 ft.

The ventilation shaft intersected the Basal Reef early in July at a depth of 4,364 ft. and the results of sampling are contained in my statement attached to the Annual Report. The shaft has now been sunk to its final depth of 4,730 ft. and stations and ore passes have been cut. The bottom of the shaft is at present being equipped to facilitate hoisting, and a haulage level to No. 3 Shaft will be started shortly. The Basal Reef should be intersected in this crosscut during February, 1953, and development on reef will then commence. It is hoped that the crosscut to No. 3 Shaft will hold through early in 1954.

A new Borehole LRS has been drilled to determine the nature of the strata in the area where a second hoisting shaft may be sunk in due course. This borehole intersected the Basal Reef at 5,044 ft., and in spite of some loss of core due to grinding, the assay results of the original intersection and three deflections averaged 1,671 in.-dwt. I think you will agree that this further confirmation of the results obtained previously is most encouraging. Your Board has great faith in the future of Harmony and developments during the last year have strengthened our belief that it is going to be one of the richest mines in the new Orange Free State goldfield. Work on the surface is progressing satisfactorily, and permanent accommodation for Europeans and natives is being extended rapidly. Eighty-one additional housing units for Europeans are in process of erection in the Harmony suburb of the proposed Virginia township, while the extension of the native hostel by ten rooms, each to accommodate 14 natives, has been completed, and work has commenced on the construction of ten more rooms. The excavations and foundations for the first 45,000 ton unit of the reduction plant have been started and the erection of the brown tanks is progressing. Work on the plant will be pressed forward steadily with the object of completing it during the first half of 1954 so that, given favourable conditions, milling may commence in the latter part of that year.

The progress of work on your Company's property, and consequently the rate of expenditure, are governed to a large extent by deliveries of equipment and material and by the performance of outside contractors. It is therefore difficult to forecast with any degree of accuracy how long our present funds will last. The net cash on hand at October 31, 1952, was £2,130,697 and it is expected that this amount will be sufficient to finance operations into the second half of next year. Thereafter, as I have said in my statement, it will be necessary to make further financial arrangements to bring the mine to the production stage. These matters are now under consideration and you will be informed in due course of the proposals which your Board has to make in this regard. While market conditions here and overseas are not at present favourable for raising large amounts of capital for new mining ventures in South Africa, I am nevertheless confident that we shall be able to obtain, without serious difficulty, such further sums as may be necessary to enable your mine to reach the production stage. When the time comes to raise the third tranche of capital for Harmony, several thousand feet of development on the Basal Reef horizon should have been completed and we should have a good indication of the values and percentage payability likely to be obtained in the neighbourhood of the ventilation shaft, where mining operations will be concentrated during the early years of production. In view of the very satisfactory values so far obtained in the many boreholes which have been sunk on and around the Harmony Lease area and in the ventilation shaft it is reasonable to hope that the footage to be developed on reef next year will also give encouraging results. Your Board has every confidence that these hopes will be justified, in which case the problem of finding further finance for the Company will resolve itself largely into a decision regarding the manner in which the necessary funds can be obtained to the best advantage of Shareholders. To bring to production a large deep-level mine, such as Harmony will be, is a lengthy and very costly undertaking, calling for faith and great patience. These qualities have been shown in a marked degree by Shareholders in Harmony, particularly by those of you who acquired your interest in the early days when the Sand River area of the new goldfield was only partially proved by a few boreholes. In these circumstances it is gratifying to know that your faith and patience are likely to be rewarded in a few years' time in a manner which will, I believe, be commensurate with the risk you have taken.

The report and accounts were adopted.

## UNION FREE STATE COAL & GOLD MINES LTD.

The Fifth Annual General Meeting of Shareholders was held in Johannesburg on November 21. **Mr. T. Reekie**, Chairman, presided and in the course of his remarks said: You will have seen from these reports that the position of Raleigh Colliery is the cause of serious concern. The operating loss incurred in the past financial year amounted to £32,067 and since production began to £63,665. Revenue was adversely affected due to despatches of coal being seriously restricted by a continual shortage of railway trucks, but the major reason for the loss has been the unduly high level of working costs.

Working conditions underground have progressively become more arduous as a result of the deterioration of the roof and the floor of the seam caused by extensive faulting and a network of dyke intrusions.

The choice of underground mechanical handling equipment, which was ordered at the time it was decided to open the colliery, has proved to be unfortunate. This equipment, which no doubt would have been advantageous when operating in relatively undisturbed conditions with regular seams and large uniform areas of workable coal, has proved to be unsuitable for operation at Raleigh Colliery where the conditions encountered are exactly the reverse.

The disclosure in recent development of faulted and burnt coal zones in areas where the original drilling had indicated workable coal has placed the colliery in the situation that its present workings are virtually enclosed by large unworkable areas containing burnt or poor coal and with generally very bad roof conditions resulting from slips and faulting.

Your Board, on the recommendation of the Consulting Engineers, therefore decided to drill the eastern area more closely in order to obtain a more accurate assessment of the extent and consistency of the coal seams it contained.

The information obtained in the drilling programme which has just been completed gives a clearer, but I regret to say even more discouraging, picture of the general mining conditions which could be expected in the unworked area of the colliery.

The Board, after very careful consideration of all the factors and supported by the recommendation of the Consulting Engineers, has decided that the expenditure of further very substantial sums in order to finance the continuance of operations cannot be justified in the light of the small anticipated profits and the comparatively restricted reserves of saleable coal in view. It has therefore been decided that operations at the colliery will be discontinued as soon as the present reserves are exhausted, probably before December 31, 1952, and that the colliery and equipment will thereafter be disposed of.

I wish to refer to the other main undertaking on which the funds of the Company have been expended, namely the Harmony Gold Mining Co. Ltd. in which, by reason of the rights taken up during the year, our holding was increased to 3,092,206 shares. The progress which is being made in opening up this property and the encouraging information which has progressively been built up from borehole and shaft intersections concerning the nature, consistency and value of the Basal Reef, give cause for satisfaction that this, the Company's principal asset, holds good promise of being an excellent investment. Your Directors have given a great deal of thought to the question of deciding the best course to be followed with regard to this asset, especially as your Company has a substantial commitment to subscribe in the next Harmony issue and as its capital funds are now exhausted. The alternative of passing on the rights of subscription to shareholders has been investigated, but it was finally decided, in view of the circumstances, that it would be preferable for the major portion of the Harmony shares to be distributed to shareholders who, in due course, could themselves exercise the rights to subscribe in the next issue. In coming to this decision the Board was influenced by the conviction that shareholders would greatly prefer to hold a direct interest in the Harmony Co. in place of the indirect interest through this Company. In considering whether it would be desirable to effect the distribution by means of a reduction of capital it was taken into account that, after disposing of Raleigh Colliery and making a distribution of Harmony shares, the remaining assets of the Company, apart from the residual Harmony shares and two minor shareholdings, would be the coal rights. Bearing in mind the long term nature of these holdings, your Directors came to the conclusion that it would be more in the interests of Shareholders to wind up the Company at this stage and dispose of the coal rights to the best advantage with the other assets than to maintain the Company in existence for a long period in the hope of eventually being able to develop one or other of these holdings. They have therefore decided that recommendations to place the Company in voluntary liquidation will be submitted to a meeting of shareholders to be convened in the near future.

The report and accounts were adopted.

## SOUTH AFRICAN COAL ESTATES (WITBANK) LTD.

### MR. T. COULTER'S STATEMENT

The Thirty-Second Annual General Meeting of South African Coal Estates (Witbank) Ltd. will be held at 45, Main Street, Johannesburg, on December 17, 1952.

The following is an extract from the statement by the Chairman, **Mr. T. Coulter**, dated October 31, 1952, circulated with the annual report and accounts for the year ended June 30, 1952:—

### ACCOUNTS

The profit derived from coal mining operations during the year ended June 30, 1952, after deduction of administration expenses, was £261,826. The comparable figure for the previous financial year was £304,153 and the drop of £42,327 is attributable to decreased deliveries to the South African Iron and Steel Industrial Corporation Ltd. of blend coking coal from the Navigation pit and to smaller sales from Landau No. 3, the latter being a direct consequence of inadequate railway transport facilities.

Sundry revenue, dividends and interest totalled £8,372 and a loss of £3,527 was incurred in Clewer Township, where no stands were sold during the year. The net profit was £266,671 which amount, together with the balance of unappropriated profit of £98,858, made a total of £365,529 available for appropriation. Provision for taxation absorbed £55,653 and dividends, maintained at the rate of 4s. per share, called for the payment of £200,000. Directors' additional remuneration of £4,500, additional appropriations for capital expenditure of £15,565, and expenses incurred in reclaiming equipment from Landau No. 2 amounting to £2,484, totalled £22,549, leaving £87,327 to be carried to the balance-sheet. The latter requires little comment. Expenditure on fixed assets and standard stock of stores totalled £1,659,360 and includes £36,730 spent during the year, principally on the new coal preparation plant and on extensions and alterations to the crushing plant. Current assets show a satisfactory margin over liabilities.

### OPERATIONS

The sales output for the year under review was 1,659,044 tons, being a decrease of 280,769 tons compared with the previous year.

Coal sold through the Transvaal Coal Owner's Association during the year amounted to 1,161,369 tons, representing a decrease of 94,614 tons compared with the previous year, equal to a decrease of 7,885 tons per month. The demand for steam coal continued at a high level, while the demand for crushed coal has continued to increase.

Hauling time lost at the two mines was chiefly due to a shortage of late arrival of railway trucks.

### NAVIGATION MINE

The development position remained satisfactory, good coal of normal thickness and value having been opened up. Iscor's requirements amounting to 497,675 tons were met with equal proportions of No. 2 and No. 5 seams.

The new coal preparation plant was commissioned early in February, 1952, and after the usual "teething troubles" were overcome, has operated satisfactorily.

### LANDAU NO. 3

The mine has continued to operate on double shift, but the acute shortage and erratic supply of railway trucks again has adversely affected the output.

The increased demand for crushed coal has necessitated considerable additions and alterations to the crushing plant. These changes will be completed in the near future when it will be possible to crush all the round coal produced up to truck supply and/or bunker capacity.

### INLAND COAL PRICES

Shareholders are no doubt aware that the Price Controller made a new determination of inland pithead coal prices with effect from July 1, 1952, as follows:—

Duff .....	per ton
Other coals, having a calorific value of up to 12 lb./lb.	5s. 10d.
Other coals, having a calorific value in excess of 12 lb./lb.	8s. 10d.
	9s. 3d.

These prices should be compared with the previous prices of 5s. per ton for Duff and 8s. per ton for all other coals irrespective of calorific value, and it will be clear that there has been a partial recognition of the principle of a price differential based on calorific value. The importance of the principle has long been stressed by the industry. We have had the support of consumers, who are naturally interested in the heating quality of coal purchased by them. Unfortunately, the determination does not go nearly far enough in the application of the principle and further representations are being made in this regard.

## THE RENONG TIN DREDGING CO. LTD.

### SIR JOHN HAY'S STATEMENT OPERATING PROFITS MAINTAINED

The Thirty-Ninth Annual General Meeting of the Renong Tin Dredging Co. Ltd., will be held on December 15 at 52-54, Gracechurch Street, London, E.C.

The following is the statement by the Chairman, Sir John Hay, which has been circulated with the report and accounts for the year ended June 30, 1952:

The output of tin ore for the year ended June 30, 1952, amounted to 838 tons against 748 tons for the previous year—a satisfactory result after taking into account that at Rasa the dredge worked in low grade ground outside the selected area for considerable periods and that Gombak dredge operated for little more than nine months. No. 2 dredge at Rasa operated throughout the period and, as anticipated when major repairs were carried out in 1950, monthly yardage figures in good digging ground passed the 100,000 level. Returns from Rasa are in fact most encouraging, gains over estimates from bore-plan being registered in respect of recoveries as well as yardage.

Gombak dredge completed all its remaining virgin ground in April this year and after dredging through tailings moved into a prepared dismantling paddock being finally shut down on May 15. During the later stages of working the dredge was frequently held up for the blasting of high limestone pinnacles which came to within a few feet of the surface. Nevertheless, yardage worked exceeded expectations.

Now that the Gombak property is exhausted it is interesting to recall that owing to the physical nature of the ground there were doubts as to whether it would prove to be a profitable proposition. In the result it turned out to be a good investment. The original purchase price was £71,000 against which the excess of revenue over working costs during the seven years' life of the mine was £650,000. Considering the difficulties encountered this is an outstanding achievement for which we are indebted to the designers of the dredge and the skill of our engineers and crews. Limited areas totalling 48 acres containing payable values remain to be treated by other methods and negotiations are being conducted with a view to letting-out these areas on tribute to gravel-pump miners. By this means we hope to earn some additional revenue.

Although the average price of tin ore was lower, operating profits were maintained at almost the same level as those for the previous year, the actual figures being £278,494 compared with £277,519. Once again the chief beneficiaries are the British and Malayan Governments for whom we are compelled to set aside £141,591 to provide for taxation whilst the Malayan Government also profited in addition to the extent of £86,812 by way of duty charged on tin ore won. The sum of £65,052 charged to Profit and Loss Account in respect of dismantling expenditure on Gombak dredge does not represent the whole cost of this operation which is still in progress and to which eventually must be added the cost of transporting the parts to a new site and re-erecting the dredge in a prepared paddock. After making this provision and the usual appropriations from profit for depletion of ore reserves, etc., the Board are able to repeat last year's rates of dividend on Ordinary Stock. At the same time the credit balance carried forward is raised from £33,122 to £42,748. Stockholders will realize that whilst Gombak dredge is out of action our revenue will be limited to returns from No. 2 dredge at Rasa and that this must bear the whole of our normal overhead charges. Nevertheless, provided the price of tin remains reasonably near its present level, the Board hope that by drawing on the enlarged carry-forward it may not be necessary to reduce dividends below the rates to which Stockholders have become accustomed.

You will observe from the Annual Report that our War Damage Awards have at last been notified. In respect of the rehabilitation of Gombak and No. 2 dredges we have been awarded £100,831 of which £75,623 has been received to date. This amount has been set against the rehabilitation loan advanced by the Malayan Government and that liability has thereby been reduced from £87,500 to £11,877. The balance of the award when received will enable us to extinguish this item altogether from our Balance Sheet. On the other side of the account Mine Rehabilitation Expenditure has been reduced from £105,923 to £25,000. This balance is equal to the outstanding balance of the foregoing award and will be extinguished when payment is actually made.

The conditional award of £27,323 in respect of No. 3 dredge creates a difficult problem for us. To qualify for payment the dredge must be restored and again put on to a tin-producing basis. We have no dredgeable virgin land which this dredge could work in the area where it lies and even if we could secure suitable land elsewhere it would not be a commercial proposition to dismantle, remove and reconstruct this old dredge to modern design and capacity as compared with the expense of providing a new machine. Our only recourse therefore in order to qualify for the award would be to re-dredge land in the vicinity of the dredge that has already been worked. We were in fact working profitably in such land when the invasion of Malaya put a stop to our operations and the question is whether there are sufficient tailings of this type still available which will provide surplus revenue after meeting working costs and the expenditure necessary to rehabilitate the dredge. Investigations are being made to settle this issue. If the result is favourable we shall proceed; if not, the award will be lost, though we may receive a small alternative payment for total loss since in those circumstances the dredge would be worth no more than its scrap value. As may be observed from our Accounts the original cost was written off before the war.

### FUTURE OPERATIONS

We have sufficient virgin land in the Western Kuala Kubu Section at Rasa to keep No. 2 dredge in operation for approximately four years. Behind that lies the Eastern Section over which a mining lease will be issued to us as soon as plans satisfactory to Government for dealing with the river running through the area have been finalized. The Eastern Section will provide from 10 to 15 years' further work for No. 2 dredge depending upon how much of the lower grade ground can be treated. This in turn will depend upon the price of tin from time to time as operations proceed.

In the unsettled state of the country we have been unable to prospect for fresh tin-bearing land upon which we could place our Gombak dredge. We have hopes, however, that we may reach a joint working arrangement with others, under which we shall be able to employ this important and valuable asset to the mutual advantage of both parties. To this end we have been engaged for some months in negotiations. We had hoped that by now these would have been concluded and that we would have been able on this occasion to announce the terms of an agreement for joint operations. As soon as a conclusion is reached in this matter a communication will be made to stockholders. Meantime, the work of dismantling the dredge and preparations for its removal and re-erection are proceeding.

The Rasa district has lost none of its unenviable reputation for terrorism and lawlessness. Our staff, happily, escaped serious molestation, apart from one incident in which, during an engagement between troops and bandits, an occupied bungalow was set on fire by a tracer-bullet and burnt out—the occupants succeeding in getting away. Government made prompt recompense. Our thanks are due to the Mine Superintendents, Engineers and their staffs and crews, especially in the circumstances to those at Rasa, for the successful results achieved during the past year.

# WILFLEY

## JAW CRUSHERS

## BALL MILLS

## CONCENTRATING TABLES

## CENTRIFUGAL SAND PUMPS

## MACE SMELTING FURNACES

## MACE SINTERING HEARTHES

### THE WILFLEY MINING MACHINERY CO. LTD.

TELEPHONE MANSION HOUSE 1674

### Salisbury House, London, E.C.2

TELEGRAMS "WRATHLESS, LONDON"



## KAMUNTING TIN DREDGING

### MR. JACK ADDINSELL'S STATEMENT

The Thirty-Ninth Annual General Meeting of Kamunting Tin Dredging Ltd. was held on Tuesday last at 55-61, Moorgate, London, E.C., Mr. Jack Addinsell (Chairman of the company) presiding.

The following is the Chairman's statement for the year ended March 31, 1952, which had been circulated with the report and accounts and was taken as read:—

In my statement last year I informed you that the Malayan War Damage Commission had notified us of the amount of our award; we have now received 75 per cent of this award and the balance-sheet shows how this has been dealt with.

It has been indicated that at least 95 per cent of the award will be paid and the further payment, which we hope will be settled in the current year, will enable us to write-off the sum still left on restoration account and discharge the balance of the rehabilitation advance from the Malayan Government.

Your Board has appropriated a further £100,000 from profit and loss account this year towards the cost of the transfer of the Pangnga dredges to the new area. As I explained last year, this transfer will involve the company in heavy expenditure.

### TRANSFER OF NO. 2 DREDGE

The position in regard to the new area in Thailand is that the No. 2 dredge worked out its leases on the Pangnga section on February 5 and closed down. The dismantling of the dredge is proceeding preparatory to its transfer to the Bangtoe area, but there is some delay in getting the sanction of the Thai Government for the admission of skilled Chinese labour from Malaya. Meantime, all necessary materials have been ordered and will be on the new area in ample time. The No. 1 dredge is expected to work out its present area by April, 1953. It is unlikely that it will be possible to commence work on the dismantling and transfer of this latter dredge before late 1953.

Shareholders will appreciate that meantime there will be loss of production, but everything possible is being done to expedite the work.

The technical managers' report fully covers the operating side of the company's activities. Production for the year was 1,678 tons from the Malayan dredges and 804 tons from the dredges in Thailand, as against 1,589 tons and 1,043 tons in the previous year. However, the average price received for tin metal was £945 against the previous year's average of £911, which resulted in the gross proceeds in each of the two years being similar. Operating expenses, however, inevitably increased.

### E.P.L. CONCESSIONS

Excess profits levy applied to the last three months of the company's financial year and is estimated to be some £15,000. Under the original provisions of this levy no consideration was taken of the fact that during the standard years the tin industry in Malaya and Thailand was only in course of rehabilitation. The industry protested and the Chancellor of the Exchequer agreed concessions which relieved the burden, although not meeting the position in full.

Conditions in Malaya continued to be difficult and dangerous. The position is being dealt with energetically by the High Commissioner, General Sir Gerald Templer, but it must be some time before there is a return to normal and prospecting for new areas can recommence. Meantime, the staff carry on with undiminished determination and our thanks and appreciation are in every way due to them.

The report and accounts were unanimously adopted and a final dividend of 27½ per cent, less tax, making a total of 40 per cent, less tax, for the year, was approved.

The retiring director, Mr. W. Mure, C.B.E., was re-elected, and the other formal business having been duly transacted, the proceedings terminated.

### W. E. SINCLAIR, M.I.M.M.

Consulting Mining Engineer  
South & East Africa & Rhodesia  
P.O. Box 1183, JOHANNESBURG

**WANTED FOR NIGERIA** — Mining Engineer with geological qualification for small tin mine in Nigeria. Age 26/28. Preferably single. Some experience hard rock addition to alluvial. Initial 18 months' tour, usual leave. Reply Box 528, The Mining Journal Ltd., 15, George Street, London, E.C.4.

## KRAMAT PULAI LTD.

The following is an extract from the Statement of Mr. Ernest V. Pearce, the Chairman, presented at the Forty-Fourth Annual General Meeting of Kramat Pulai Ltd., which was held on November 26 at 73 Cheapside, London, E.C.2:

I wish to refer to the resignation of our former chairman, Mr. Ashworth Hope, which took place in March last. After a long and distinguished legal career in Malaya, Mr. Hope returned to this country in 1928 and devoted his energies to the various companies of which he was a director. Mr. Hope was appointed chairman of this company in February, 1945: he at all times had the interest of the company very much at heart, and has decided to withdraw from active business life.

The working profit for the year amounted to £29,688. After providing for taxation, there remains a balance of £12,964, which, with the unappropriated balance—£24,509—from the previous year, makes an available credit of £37,473.

Your directors have pleasure in recommending the payment of a dividend of 3d. per share, together with a bonus of 3d. per share, both less tax.

### DEMAND FOR SCHEELITE

Shareholders will note from the profit and loss account that while the tribute from tin has decreased by nearly £11,000, the profit from scheelite has increased by over £15,500. Scheelite is a mineral containing a high percentage of the metal tungsten which is largely used as a hardening agent for steel, particularly steel used in armaments.

The amount of tin concentrate produced, by the tributaries declined by approximately 30 per cent. Fortunately an increase of a little over £75 a ton in the average price realized compensated in some measure for the decrease in production.

There is the probability of our having to face a further decline in our production of tin concentrate as there is every indication that our reserves of payable ground are becoming exhausted. Furthermore, the realizable price for scheelite to-day is considerably below that received in the year ended March 31, 1952. It is still our intention to carry out, when security conditions permit, a geological survey of the company's areas in the hope that we may locate further mineral deposits.

Application for a mining lease covering the Kampong Binjai area has been lodged. Owing to the low value in this area and the level of present taxation it would be uneconomical to equip the area with a large and very expensive dredge. If, however, our application is granted, we have no doubt that we can conclude a satisfactory arrangement with our associated company—Malayan Tin Dredging Ltd., whose Kampong Gajah area adjoins Kampong Binjai, by which Malayan Tin will, when the time is opportune, undertake to dredge the area.

### TROMAL PROSPECTING

The enterprise in the sea off Siam—Tromal Prospecting Ltd.—in which, as you are aware, Kramat Pulai Ltd., and its associated companies, Malayan Tin Dredging Ltd., and Southern Malayan Tin Dredging Ltd., are collaborating with the Trench group, has been prospecting with encouraging results. One area has been proved to contain payable values and as soon as possible after leases to mine have been issued it is intended to proceed with the equipment of the area.

Owing to the extremely difficult security conditions obtaining in Trengganu we have decided to allow the prospecting permit, referred to in the chairman's address last year, to lapse.

The lack of prospecting in Malaya leads to the conclusion that there can be no increase in Malaya's production in the foreseeable future. On the contrary, in view of the penal taxation now in force, it is uneconomical to provide expensive new plant for equipping low-grade areas, and future production is likely to decrease. I am sorry to have to report that our claims for compensation for war damage and rehabilitation have still not been assessed. The report and accounts were adopted.

**FOR NEW SOUTH WALES PROJECT**—Required highly qualified and experienced Mining Engineer to undertake general management of iron ore deposit. Electro-chemical qualifications desirable. Write applications with full details experience and salary expectations to Box Z.D., 531, Deacon's Advertising, 36, Leadenhall Street, E.C.3.

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## THE PERAK RIVER HYDRO-ELECTRIC POWER CO., LTD.

ANOTHER YEAR OF SUCCESS  
MR. HUGH G. BALFOUR'S SURVEY

The Twenty-Sixth Annual General Meeting of the Perak River Hydro-Electric Power Co. Ltd., was held on November 27 in London, Mr. Hugh G. Balfour (the Chairman) presiding.

The following is an extract from his circulated Statement: The Directors' Report and the Accounts for the year ended July 31, 1952, again indicate progress, despite the unsettled conditions which continued to prevail in Malaya during that period. The gross revenue was £1,266,709, compared with £1,138,781 in the previous year, the increase being due partly to the greater number of units sold and partly to adjustments in our tariffs rendered necessary by the upward trend in operating costs.

The total operating expenses were £509,236, which was £48,500 in excess of last year's figure, for, although the cost of fuel showed a net saving of £8,927 due to the greater number of units generated by the Chenderoh hydro station, the cost of labour and materials increased by £57,427, largely due to the boom conditions which prevailed in Malaya immediately following the outbreak of war in Korea. The rapid upsurge in the prices of tin and rubber did a great deal of harm, for it raised extravagant demands, which still persist in some quarters, although the prices of these commodities have since receded substantially from their peaks.

The surplus on operations in Malaya for the year to July 31, 1952, was £757,473 compared with £678,045 in the previous year. This surplus is welcome as it facilitates the building up of reserves to offset the high cost of renewals of plant at present-day prices.

The company's war damage claim was finally assessed during the year by the Malayan War Damage Claims Commission at £537,354, and a first interim payment of £161,206 (30 per cent of the award) has been received. This final award compared with our adjusted claim of £685,830.

### OUTPUT

The peak load on the system for the year under review was 57,000 kW., and this compares with 53,700 kW. during the previous year. The units generated amounted to 367,000,000, which was 4 per cent above last year's figure.

At the Chenderoh hydro station the river flow was very favourable throughout the year, and this together with the benefit derived from the new radial gate, resulted in a record output of 227,000,000 units, an increase of 15.3 per cent on the previous year. A new spare 3,650 kVA. transformer has been installed at this station.

Malim Nawar steam station generated 98,000,000 units, a decrease of 6.2 per cent. A considerable amount of maintenance work was done during the year and, after making allowance for the age of the major portion of the equipment, this station is now in good condition.

Batu Gajah steam station generated 42,000,000 units, which was 18 per cent less than during the previous year. Work on the installation of the new boiler and generating sets, and the 2,000 ton oil storage tank, is progressing as rapidly as the slow delivery of materials allows. All this plant was expected to be installed by the end of 1952 but it is now unlikely to be in service before the middle of 1953.

Our subsidiary, the Kinta Electrical Distribution Co., made excellent progress during the year and it now supplies 48 towns and villages. The number of consumers connected at the end of the year was 10,006, compared with 8,208 at the close of the previous year. The units sold amounted to 11,400,000, an increase of 20 per cent.

### APPROPRIATIONS AND CARRY FORWARD

We have provided a sum of £250,000 for depreciation, while provision for taxation on the profits of the year requires £381,839, leaving a balance of profit for the year of £132,777, to which must be added the amount brought forward and over-provisions from previous years of £308,126, making a total of £440,903. Out of this sum we consider it prudent to augment our general reserve by an allocation of £75,000. Last year a start was made on paying off the arrears of Preference share dividends by a payment covering three years to July 31, 1944. Taking into account the results for the year and the provision for taxation now no longer required, your directors have this year decided to pay off the seven years' arrears of Preference Dividend to July 31, 1951, together with that due for the year under review, absorbing, less income tax, the sum of £262,500, leaving a balance of £103,403 on net revenue account to be carried forward to the following year.

As to the prospects for the current year, the returns to date are encouraging, although the outlook for the rest of the year must, to a certain extent, be obscured by conditions in Malaya. Subject to no unforeseen circumstances, I see no reason why our operations should not show a comparable result to those for the year under review.

The report was adopted.

## RAND SELECTION CORPORATION LTD.

(Incorporated in the Union of South Africa)

DIVIDEND No. 75

SHARE WARRANT COUPON No. 76

With reference to the notice of declaration of dividend published in the Press on November 11, 1952, the following information is published for the guidance of holders of share warrants to bearer. The undermentioned dividend will be paid in British currency at par on or after January 5, 1953, after surrender of COUPON No. 76 at Barclays Bank (Dominion, Colonial and Overseas), Circus Place, London Wall, London, E.C.2, or at the equivalent in Belgian currency at the office of the Guaranty Trust Company of New York, 27, Avenue des Arts, Brussels, Belgium, where listing forms may be obtained.

Coupons must be left four clear days for examination and may be presented any day (Saturdays excepted) between the hours of 11 a.m. and 2 p.m.

Coupons belonging to holders resident in Great Britain or Northern Ireland will be paid at the rate of 1s. 3.434d. per share, which is arrived at as follows:

	s. d.
Amount of dividend declared (in British currency at par) ... ..	2 0
Less: South African non-resident shareholders' tax at 1s. 3.84d. in the £ ... ..	1.584
	1 10.416
Less: United Kingdom Income Tax at 4s. 9d. in the £ on the Gross amount of the dividend of 2s. 5.398d. ... ..	6.982
Net amount: 1 3.434	

United Kingdom Income Tax will be deducted from coupons presented for payment in London unless such coupons are accompanied by Inland Revenue declarations.

For and on behalf of

ANGLO AMERICAN CORPORATION OF SOUTH AFRICA LIMITED.

London Office:  
11, Old Jewry, E.C.2.  
November 24, 1952.

London Secretaries,  
W. E. GROVES.

NOTE:—The Corporation has been requested by the Commissioners of Inland Revenue to state:—

Under the provisions of Section 348 and the Seventeenth Schedule of the Income Tax Act 1952 relating to "unilateral relief" from double taxation, South African tax applicable to the dividend is allowable as a credit against the United Kingdom tax payable in respect of the dividend. The deduction of tax at the reduced rate of 4s. 9d. in the £ instead of at the standard rate of 9s. 6d. in the £ represents a provisional allowance of credit at the rate of 4s. 9d. in the £. The final rate of credit allowable to a particular shareholder depends on his personal rate of tax; it may be more or less than 4s. 9d. in the £ but must not exceed 3/4ths of the personal rate. Revision of the credit involves a corresponding adjustment of the amount shown above as the gross amount of the dividend for United Kingdom tax purposes.

### DIVIDENDS

Consolidated Zinc Corp. 41% Cum. Pref. 24%; Ord. 1s. i (Jan. 1)

Gopeng Consolidated 12½% i (Dec. 10)

Jantar Nigeria 35%

Jos Tin Area 20%

Loloma (Fiji) Gold Mines 9d. (Dec. 22)

Meru Tin 12½%

Minworth Metals 40%

Mt. Isa Mines 10% (Dec. 31)

New Broken Hill Cons. 9d. i (Jan. 1)

Pengkalen Pref. Ord. and Ord. 15% i (Dec. 19)

Rambutan 3½% i (Dec. 3)

Rantau Tin Dredging 80c.

Renong Tin Dredging 20%

Southern Kinta Consolidated 12½% i (Jan. 1)

South-West Africa Co. 45%

Temoh Tin Dredging 2s. (Dec. 23)

Trinidad Leaseholds 11½% \*

United African Explorations 6½%

i interim \* tax free

## Obituary

### WILLIAM GREEN

Closely following on the death of Mr. Philip Murray comes news of the decease of Mr. William Green, President of the American Federation of Labour, usually known as the A.F. of L. He died at his home at Cochocton, Ohio, on Friday of last week at the age of 79. Thus, within two weeks two of the big triumvirate of U.S. Labour leaders have passed away and the changes in the leadership of these great organizations at a time when the direction of Administration policy towards organized labour may become critical will be watched with some anxiety.

Mr. Green, like Mr. John L. Lewis, started life in the coal mines, being the son of an English miner who had migrated to the U.S. At an early age his gifts as a speaker and organizer soon became apparent and at the age of 27 he became president of his sub-district of the United Mine Workers of America, and later of the whole Ohio district.

After some years of devotion to politics he returned to his work for the U.M.W., in 1912, and served as Secretary-Treasurer until 1924. He was elected to the Council of the A.F. of L. in 1913, and became president on the death of Mr. Samuel Gompers on December 13, 1924, a position which he retained for the rest of his life. He strongly supported President Wilson's administration during World War I during which time the A.F. of L. reached its apex, both in numbers and economic power.

The slump of 1929-31 spelt hardship for U.S. workers and the advance of the "machine age" rendered employment in industry less stable and paved the way for organization by industries rather than by crafts—which was the basis of the A.F. of L.—and ultimately the formation of the rival union—the Committee of Industrial Organization—the C.I.O.

Mr. Green inspired much of the thought which went to shaping the New Deal, but his moderation of outlook made it difficult to make headway against the more aggressive policies of the C.I.O., and the United Mine Workers to which the A.F. of L. seemed, temporarily at any rate, to be losing ground. Widespread tributes to Mr. Green's work and character have been paid by the United States Press and public men, especially by the Secretary of State, Mr. Dean Acheson.

Mr. George Meany, like the late Mr. Green before him, Secretary-Treasurer of the Union, has been unanimously chosen to succeed Mr. Green as President of the A.F. of L. He had already acted as President for some time past, during the illness of the late President.

The death is announced of **Mr. L. E. Slowe**, a director of Ampat Tin Dredging.

The death is announced of **Mr. Geoffrey Merton Gullick**, a director of Mavor & Coulson.

### HER MAJESTY'S COLONIAL SERVICE

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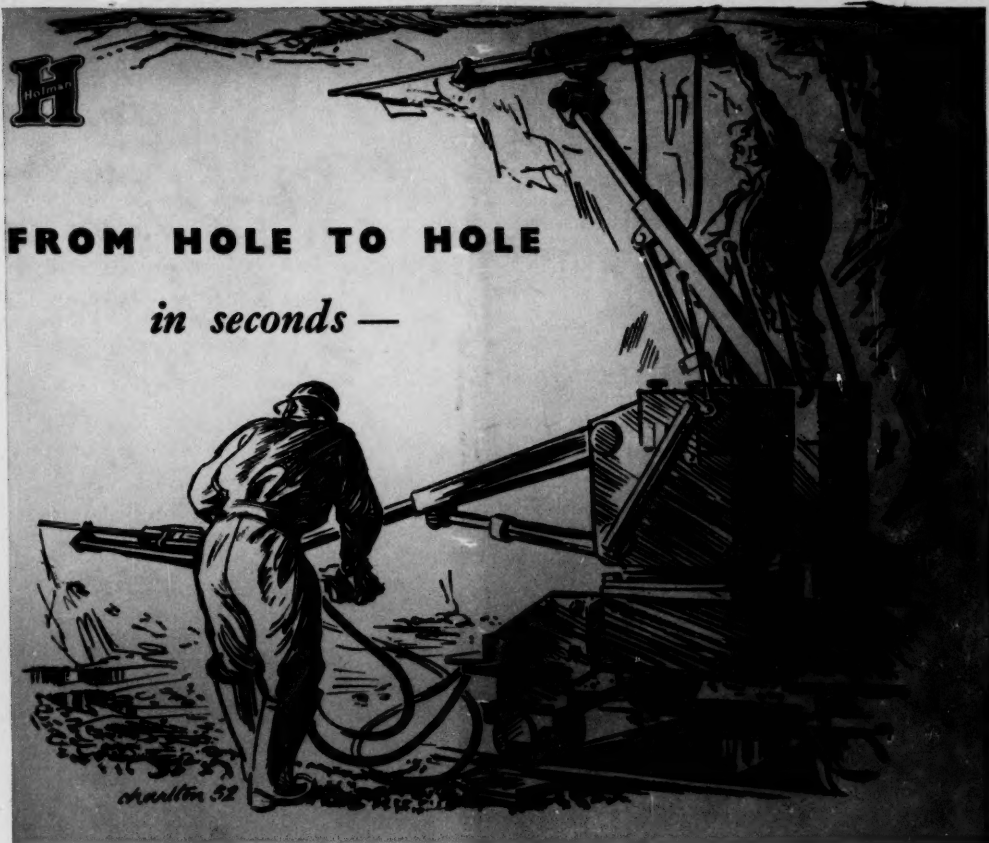
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